CLEVELAND OPPORTUNITY CORRIDOR
OHIO DEPARTMENT OF TRANSPORTATION

Environmental Justice Technical Memorandum

Opportunity Corridor
Cuyahoga County, OH

Submitted to:

Ohio Department of Transportation
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Garfield Heights, Ohio 44125

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April 2013

HNTB

Environmental Justice
Technical Memorandum
CUY - Opportunity Corridor Project, PID No. 77333
Cuyahoga County, Ohio

Prepared for

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April 2013

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EXECUTIVE SUMMARY

The Opportunity Corridor project would involve the construction of a new arterial roadway (urban boulevard) within the City of Cleveland, Cuyahoga County, Ohio. The proposed urban boulevard would consist of a four- to five-lane typical section with turn lanes at intersections. It would begin in the west at the I-490/E. 55th Street intersection, which is the eastern extent of the Interstate highway system and the I-77/I-490 system interchange. The proposed boulevard would end at the E. 105th Street/Chester Avenue intersection in the east. **Figure 1, Appendix A** shows the project study area and proposed alignment of the Opportunity Corridor project.

All of the neighborhoods in the project study area contain concentrations of low-income and/or minority populations that exceed city, county and/or state averages. Using the Federal Highway Administration's publication entitled *Community Impact Assessment: A Quick Reference for Transportation* as a guide, the basic framework of the environmental justice assessment was centered on a comprehensive approach to the impact analysis. Using this approach, the Project Team gathered relevant data, analyzed the data, and developed a conclusion. The analysis and conclusions of this assessment are summarized in this technical memorandum. To consider the context and intensity of each potential community impact, both quantitative and qualitative evaluation criteria were utilized. All qualitative evaluations were assessed based on data collected during the study process, including stakeholder input, as well as sound professional judgment.

As part of the preliminary engineering and environmental studies, the Project Team is using a context sensitive solutions (CSS) design process to proactively engage the study area residents, business owners, and the general public to provide input into the design of the proposed roadway. Through this process, several elements have been incorporated into the design to minimize negative impacts, as well as to improve the functionality of the transportation facility and the visual environment of the study area. These elements include multi-modal facilities such as a sidewalk and a multi-use path; mast arm traffic signal supports; combined street and pedestrian lighting; grass tree lawns (parkways); street trees; roadway median with stormwater treatment measures; retaining walls and bridge abutments with form-liner surfaces and colored surface sealer; and designated locations for streetscape amenities such as benches, trash receptacles, and bike racks.

Several avoidance and minimization measures have also been incorporated into the design of the proposed project. These measures include the use of retaining walls to limit right-of-way acquisition and displacements; alignment shifts to avoid and minimize negative effects to existing residences, as well as existing and planned expansions of existing businesses; and engineering design to avoid impacts to community resources such as the Kenneth Johnson Recreational Center, churches and historic properties. The Project Team will continue to work through final design to identify and evaluate measures to avoid and minimize any potentially negative effects of the proposed project.

The characteristics of the project study area are such that any projects—including the proposed Opportunity Corridor project—would have an impact on low-income and minority populations. Due to

the area's socioeconomic characteristics, a feasible alternative which addresses the identified transportation needs and avoid impacts to low-income and minority populations does not exist. During the project development process, a number of factors were considered and, to the extent practicable, impacts to residences, businesses, and community facilities were avoided and/or minimized. Despite these efforts, unavoidable impacts would still occur as a result of the proposed project. These impacts would be predominantly borne by low-income and minority populations; therefore, the Opportunity Corridor project would result in disproportionately negative effects to low-income and minority populations.

Based on this determination, several mitigation measures and community enhancements will be implemented as part of the proposed project. These measures, which are summarized below, will mitigate the negative impacts of the proposed project, as well as provide additional benefits to the local community beyond the proposed transportation improvements:

- ODOT will commit to building two pedestrian/bike bridges: one at E. 55th Street, near the western terminus of the project, and another bridge in the mid-section of the project at E. 89th Street. The estimated cost of each bridge is expected to be about $1,500,000.
- The project would bisect some existing blocks, which could isolate some remaining residents. To mitigate potential negative impacts, ODOT will commit to a voluntary residential relocation program to allow residents not directly impacted by the project but located in isolated pockets adjacent to the project to be eligible for relocation assistance. ODOT proposes to commit up to $1,000,000 toward the cost of the program.
- The Kenneth L. Johnson (Woodland) Recreational Center is an important community resource to area residents. ODOT will commit to providing a financial contribution to the next phase of planned expansion of the facility. ODOT expects the financial aid to be approximately $500,000.
- As part of the relocation process, ODOT will work to provide comparable replacement housing options in terms of transit access, if they exist on the open market. Additionally, to mitigate the potential negative effects to community cohesion resulting from residential displacements, ODOT will make all reasonable efforts to relocate affected residential land-owners within the same neighborhood, if the residents so desire.
- Noise walls are recommended in three specific areas to mitigate predicted traffic noise impacts. In accordance with ODOT's policy, ODOT will gather input from residents and property owners who would be affected by the noise walls. ODOT will decide whether to build the noise walls based on the desires of the affected people. If noise walls are desired, the people who are affected would help decide how the walls would look on their side of the wall.

Beyond the specific mitigation commitments outlined above, ODOT intends to present following additional mitigation measures and community enhancements to the public as part of the Draft EIS and public hearing in an effort to seek input as to whether these measures should be implemented as part of the proposed project:

- Job Training Assistance – ODOT could provide a financial contribution towards existing job training programs for work in conjunction with local labor unions to promote work force development in the construction industry and potential construction work on highway projects.
- Noise Barrier Enhancements – ODOT could provide enhanced noise barriers at warranted locations. The enhanced design could include using transparent materials to increase visibility, as well as other alternative materials to improve the visual appearance of the barriers.
- Urban Agriculture Preserve – ODOT could provide financial aid to assist in the planning and development of sites previously identified to part of the Urban Agricultural Innovation Zone, which is located in the Kinsman neighborhood.
- St. Hyacinth Neighborhood Entrance – To mitigate the potential negative effects associated with the closure of Francis Avenue at E. 55th Street, ODOT could construct enhancements along Maurice and Bellford avenues. These measures could include items such as street trees, sidewalk repair and/or pavement surface course repair within the existing right of way.
- ODOT could consider increasing the Disadvantaged Business Enterprise (DBE) construction goal to 15-percent in an effort to facilitate DBE participation in the construction contract(s).
- Enhanced Bus Shelters – ODOT could participate in the construction of enhanced bus shelters in areas where the existing bus lines intersect the new alignment sections of the project. This could include Kinsman Road, E. 79th, Buckeye Road, Quincy Avenue and Cedar Avenue.

There are also a number of positive impacts anticipated to result from the implementation of the proposed project, including the following:

- Improved access to the Interstate system and a major employment center (University Circle);
- Increased mobility and local access for all transportation system users;
- Increased pedestrian and bicycle access, connectivity, and safety;
- Potential for increased local employment opportunities resulting from planned complementary development as part of the City of Cleveland's revitalization strategy;
- Potential for enhanced community cohesion through complementary infill development and redevelopment;
- Improved visual environment through incorporation of visual design elements such as mast arm traffic signal supports; combined street and pedestrian lighting; grass tree lawns (parkways); street trees; landscaped roadway median with stormwater treatment measures; retaining walls and bridge abutments with form-liner surfaces and colored surface sealer; and design locations for streetscape amenities such as benches, trash receptacles, and bike racks;
- Improved safety through the construction of upgrades to the existing local streets at proposed intersections, construction of dedicated bicycle and pedestrian facilities, improved levels of service at congested intersections, as well as an increased traffic- and pedestrian-generated human presence.

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1.0 INTRODUCTION

In 1994, concern over low-income and minority populations bearing a disproportionate share of adverse health and environmental consequences led President Clinton to issue Executive Order 12898, focusing federal agency attention on environmental justice issues. The U.S. Department of Transportation (DOT) and Federal Highway Administration (FHWA) responded by developing environmental justice implementation orders to address these concerns. The fundamental principles of environmental justice are:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected populations in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

The purpose of this technical memorandum is to:

- Describe the methodology for the environmental justice assessment for the proposed Opportunity Corridor project;
- Describe the efforts that were made to involve low-income and minority populations in the decision-making process;
- Assess the potential for project-related direct, indirect, and cumulative effects to low-income and minority populations;
- Determine whether the Opportunity Corridor project would have a disproportionately high and adverse effect on low-income and minority populations;
- Describe minimization, mitigation and enhancement measures.

1.1 PROJECT DESCRIPTION

The Opportunity Corridor project would involve the construction of a new arterial roadway (urban boulevard) within the City of Cleveland, Cuyahoga County, Ohio. The proposed urban boulevard would consist of a four- to five-lane typical section with turn lanes at intersections. It would begin in the west at the I-490/E. 55th Street intersection, which is eastern extent of the Interstate highway system and the I-77/I-490 system interchange. The proposed boulevard would end at the E. 105th Street/Chester Avenue intersection in the east. **Figure 1, Appendix A** shows the project study area and proposed alignment of the Opportunity Corridor project.

Between the I-490/E. 55th Street intersection and Quincy Avenue, the proposed boulevard would generally be on new alignment. From Quincy Avenue to Chester Avenue, the roadway would be constructed along the existing E. 105th Street alignment. The boulevard would include a depressed, grassy median between E. 55th Street and Quincy Avenue. In addition, wide outside travel lanes would

be provided for shared use with bicycle traffic. The proposed boulevard would also include a multi-use path on the south side of the roadway and a sidewalk on the north side of the roadway.

The proposed boulevard would have signalized intersections with Kinsman Road, E. 75th Street, E. 79th Street, Buckeye Road, Woodland Avenue, E. 93rd Street, Quincy Avenue, Cedar Avenue, Carnegie Avenue, Euclid Avenue, and Chester Avenue. Indirect signalized access would be provided to E. 55th Street using a quadrant roadway.

1.2 PURPOSE OF AND NEED FOR PROJECT

The purpose of the proposed Opportunity Corridor project is to improve transportation infrastructure, access, and mobility within a historically underserved, economically depressed area within the City of Cleveland.

The proposed project is intended to address the following need elements:

- Improve system linkage;
- Improve mobility; and
- Support planned economic development.

1.3 METHODOLOGY

This Environmental Justice (EJ) Technical Memorandum has been prepared in accordance with federal and state guidelines for assessing environmental justice, including:

- Presidential Executive Order (EO) 12898*, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994);
- *USDOT Order 5610.2(a) Final DOT Environmental Justice Order* (May 2012);
- *FHWA Order 6640.23A FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (June 14, 2012);
- *Title VI of the Civil Rights Act of 1964;*
- *The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970;*
- *Community Impact Assessment: A Quick Reference for Transportation – Publication No. FHWA-PD-96-036* (FHWA, 1996);
- *Guidance and Best Practices for Incorporating Environmental Justice into Ohio Transportation Planning and Environmental Processes* (ODOT, August 2002);
- *Ohio Department of Transportation Environmental Justice Guidance* (Revised September 20, 2012); and
- *FHWA Technical Advisory T 6640.8A: Guidance for Preparing and Processing Environmental and Section (4) Documents* (FHWA, October 1987).

Using the Federal Highway Administration's publication entitled *Community Impact Assessment: A Quick Reference for Transportation* as a guide, the basic framework of the environmental justice assessment was centered on a comprehensive approach to the impact analysis. In general, the EJ impact assessment utilized the following seven-step process:

- Step 1 – Define the project and study area
- Step 2 – Evaluate the presence of minority and low-income populations with study area
- Step 3 – Analyze positive and negative impacts (Repeat as needed)
- Step 4 – Identify solutions to address potential negative impacts (Repeat as needed)
- Step 5 – Conduct public involvement activities to coordinate information (Repeat as needed)
- Step 6 – Refine design/re-analyze impacts/update public outreach methods (Repeat as needed)
- Step 7 – Document findings

It is important to note that Steps 3 through 6 of the impact assessment process were iterative in nature and repeated as new information—such as updated traffic data, refined design, or public input—became available. Additionally, input received from the public was used to continually refine the public involvement process to maximize opportunities for public input into the transportation decision-making process. The analysis and conclusions of this assessment are summarized in this technical memorandum (Step 7). The following paragraphs provide additional details regarding the impact categories and evaluation criteria used in the EJ assessment.

Assessment Categories and Impact Criteria

To understand how the proposed Opportunity Corridor would affect low-income and minority populations, eight impact categories were identified. To consider the context and intensity of each potential community impact, both quantitative and qualitative evaluation criteria were utilized. In general, the majority of the evaluation criteria were qualitative in nature. Some categories, such as displacements, were a combination of quantitative (i.e., the number of displacements) as well as qualitative factors (i.e. effect on neighborhoods). All qualitative evaluations were assessed based on data collected during the study process, including stakeholder input, as well as sound professional judgment. The impact categories and a description of the factors evaluated within each are shown below in **Table 1, page 6.**

Table 1 Environmental Justice Assessment Impact Categories

Impact Category	Evaluation Factors
Displacements	Effects on neighborhoods, residential and business displacements, and relocation sites
Physical aspects	Barrier effect, noise and vibration, other physical intrusions (dust, odor, etc.)
Visual environment	Aesthetics, compatibility with community goals and adopted plans
Land use	Land use patterns and compatibility with adopted plans
Economic conditions	Business and employment impacts, short-term impacts, business visibility, tax base, and property values
Mobility and access	Pedestrian and bicycle access, public transportation, and vehicular access
Provision of public services	Use of public facilities, displacement of public facilities, disruption of public services, and emergency response
Safety	Pedestrian, bicycle and vehicular safety, and security

2.0 EXISTING CONDITIONS

2.1 STUDY AREA DESCRIPTION

The project study area is generally bounded by the existing railroad transportation corridor containing Greater Cleveland Regional Transit Authority's (GCRTA) Red Line, GCRTA's Blue/Green Line and freight tracks owned and operated by Norfolk Southern Corporation and CSX Corporation. It is located entirely within the City of Cleveland and includes portions of the Central, Kinsman, Slavic Village, Fairfax, Buckeye and University Circle neighborhoods.

The western study area limits include the I-490 approach to the E. 55th Street intersection in the Slavic Village (North Broadway) neighborhood. The eastern study area limits include the E. 105th Street/Chester Avenue intersection in the University Circle neighborhood. The project study area is shown on **Figure 1, Appendix A**.

The neighborhoods that are partially located within the project study area generally align with Year 2000 Statistical Planning Areas (SPAs) used by the City of Cleveland to aggregate statistical data. **Table 2, page 7** and **Figure 2, Appendix A** show the neighborhoods represented by each SPA. United States Census data for each SPA was used to examine the characteristics of each neighborhood. The City of Cleveland is currently in the process of revising their SPA's based on the 2010 Census data. For this assessment, the most recent demographic data available was used, but the assessment areas were established to match the Year 2000 SPA's. Likewise, existing neighborhood boundaries were considered when evaluating the effects of the proposed action.

Table 2 Neighborhoods Represented by each Year 2000 Statistical Planning Area (SPA)

Neighborhood	Statistical Planning Area
Central	Central
Kinsman	Kinsman
Slavic Village	North Broadway
Fairfax	Fairfax
Buckeye	Woodland Hills
University Circle	University

A portion of the project study area between I-77 and University Circle is sometimes referred to as the "Forgotten Triangle." The "Forgotten Triangle" is generally bounded by Kinsman Road, Woodland Avenue, and Woodhill Road as shown in **Figure 2, Appendix A**. This area, which consists mainly of industrial and residential uses, is economically depressed with neglected buildings and vacant parcels dominating the landscape. Additionally, the rail infrastructure—which once serviced the industries in the area—along with the Kingsbury Run Valley, now serves as a barrier to access and mobility.

According to information provided by the U.S. Census Bureau, the population of each neighborhood within the project study area has steadily declined since 1940, as shown in **Table 3, below**. The loss of population can be attributed to several factors, including the general decline of the manufacturing industry as well as the evolution of the economy such that trucking replaced rail as the preferred method of moving industrial goods. These changes resulted in local businesses leaving in search of locations with better access to the interstate highway system, enhanced visibility and new infrastructure to support their business needs. As a result, businesses closed or relocated, employment opportunities declined, and neighborhoods experienced disinvestment.

Table 3 Population by Study Area Neighborhood

Neighborhood	Year				% Change (1940 - 2010)
	1940	1970	2000	2010	
Buckeye	19,537	18,496	16,093	9,517	-51%
Central	62,038	27,280	12,107	11,687	-81%
University Circle	17,221	12,804	9,469	7,848	-54%
Fairfax	35,456	22,157	7,352	6,284	-82%
Kinsman	20,139	15,361	5,842	4,246	-79%
North Broadway (Slavic Village)	21,003	13,424	9,049	6,060	-71%

Source: State, County, and City data based U.S. Census Bureau (Factfinder Quickfacts accessed on August 13, 2012)
Neighborhood data based on American Community Survey (Block Group data downloaded August 10, 2012)

The declining population as well as the recent economic recession—and associated increases in unemployment and foreclosure rates—has led to a number of other negative trends affecting this area. Vacancy rates have increased, and the City of Cleveland has stepped up its efforts to demolish vacant and abandoned structures. Overall, approximately 29-percent of the land in close proximity of the project study area is currently vacant (see **Figure 3, Appendix A**)[1]. The increasing presence of vacant lots has diminished community cohesion, aesthetic appeal and, consequently, property values and the tax base. The area's environmentally-neglected sites (brownfield sites)—left behind from previous industrial uses—have further hindered investment. **Figure 4, Appendix A** shows the locations of special/hazardous waste sites located near the project. Disinvestment has also taken a toll on local cultural and historic resources, as deferred maintenance and abandonment have prompted demolition of some of these resources. Likewise, declining populations and a challenging economic climate have led to the closure of area churches and schools. These factors have led to the further decline of the "Forgotten Triangle."

2.2 COMMUNITY RESOURCES

Community resources within the project study area were identified using existing local, state, and federal geographic information system (GIS) databases and documentation prepared as part of other project-related studies. Resources identified included community facilities such as parks, churches, and police/fire/health services. These resources, which are summarized below, are identified on **Figure 4, Appendix A**.

- *Parks and Recreational Facilities* – There are four City of Cleveland Parks District facilities located in the study area. These facilities include Dell Playground, Kenneth L. Johnson (Woodland) Recreation Center, Rockefeller Park, and Wade Park. There are several Park District facilities located outside the study area; however, these facilities are located such that they could serve those living in the study area.
- *Schools* – There are three schools that are located in the study area, and three private schools located adjacent to the study area. Additionally, according to information provided by Cleveland Metropolitan School District (CMSD), there are seven neighborhood schools for which the attendance areas extend into the study area. Students living within two miles of these neighborhood schools are not provided transportation by CMSD.
- *Churches* – There are thirty-five churches located in the study area.
- *Cemeteries* – There are two cemeteries (Woodland Cemetery and St. Joseph Cemetery) located in the study area.
- *Libraries* – There is one branch of Cleveland Public library in the study area and three other branches just outside the study area which serve those living and working within the study area.

[1] The calculation of vacant land and **Figure 3, Appendix A** were developed as part of the indirect and cumulative effects assessment for the proposed Opportunity Corridor project. For additional information, please see *Indirect and Cumulative Effects (ICEA) Technical Memorandum* (July 2012).

- *Cuyahoga Metropolitan Housing Authority (CMHA)* – There is one facility operated by the CMHA located within the study area (Heritage View – formerly Garden Valley).
- Transit facilities – There are multiple rapid transit stations and bus stops within the study area. Within the study area, bus service is provided along E. 55th Street, E. 79th Street, E. 105th Street, Euclid Avenue, Stearns Road, Martin Luther King Jr. Drive, Cedar Avenue, Quincy Avenue, and Kinsman Road. There are also four GCRTA rapid transit stations within the project study area, including E. 55th Street Station (Red and Blue/Green Lines), E. 79th Street Station (Red Line), E. 79th Street Station (Blue/Green Line), and E. 105th Street/Quincy Avenue Station (Red Line).
- *Other Facilities* – There are several other community facilities located within and adjacent to the study area (e.g., post offices, cultural facilities, community centers, day care centers etc.).

2.3 ON-GOING PROGRAMS AND POLICIES

The City of Cleveland and its partners have targeted efforts to promote economic development and investment in this area. One purpose of the Opportunity Corridor project is to provide the transportation infrastructure to support and complement these efforts. In addition to the Opportunity Corridor project, some of these revitalization initiatives include:

- *Connecting Cleveland 2020 Citywide Plan* – The goals of the City's economic development plan include the following:
  - Cleanup and reuse brownfield sites;
  - Reuse, demolish and reconstruct abandoned buildings;
  - Retain, support or expand existing businesses, institutions and local community developments;
  - Improve job opportunities for local residents; and
  - Strengthen and improve the quality of neighborhoods.
- *Planned Development Initiatives* – Several Community Development Corporations (CDCs) operate in neighborhoods surrounding the project, including Burten Bell Carr, Slavic Village, Fairfax Renaissance, Buckeye Area and University Circle, Inc. These CDCs have numerous development activities planned for these neighborhoods, which will have a positive effect on the area's economic climate.
- *Cleveland Clinic Master Plan* – Envisions fourteen new buildings and a continuous corridor of outdoor plazas extending from East 83rd St. to East 105th St.
- *U.S. Department of Housing and Urban Development-U.S. Department of Transportation-U.S. Environmental Protection Agency Partnership for Sustainable Communities grant* – Funds an area-wide plan for brownfields assessment, cleanup and reuse. The plan is being coordinated with the Opportunity Corridor project.
- *City of Cleveland Economic Development Department Brownfield Development Program* – Provides resources to complete assessments, acquisition, consolidation, demolition, and

environmental clean-up of brownfield sites to create ready-to-build land for new or expanding businesses.

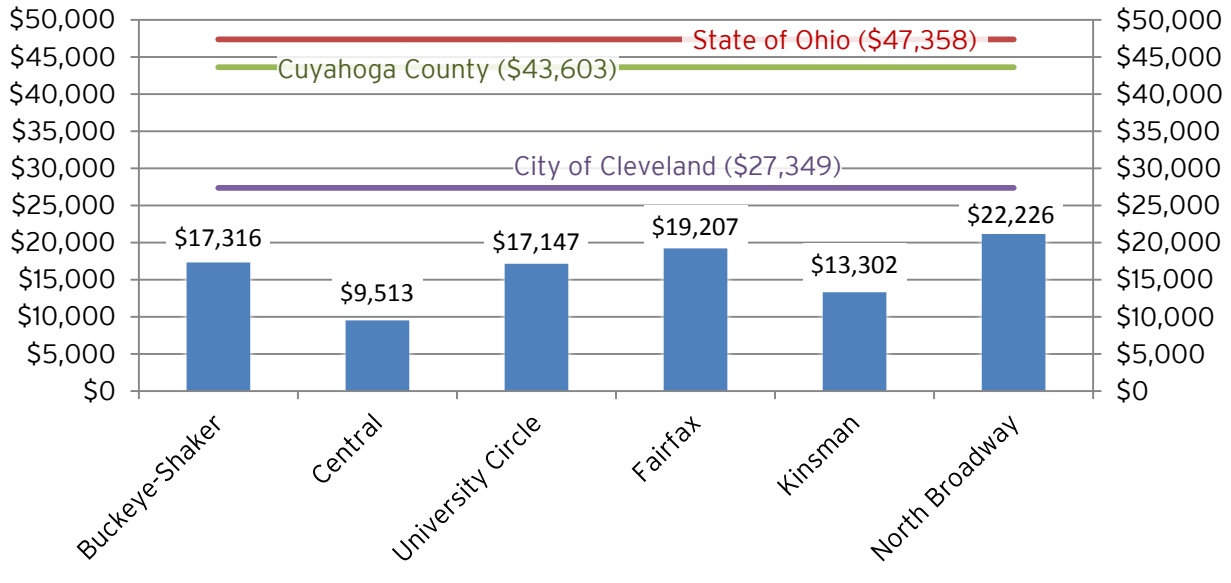
- *Northeast Ohio Regional Sewer District (NEORSD) Project Clean Lake* – Invests $3 billion to decrease incidences of sewage overflow from the existing combined sewer system. NEORSD is working with the City of Cleveland to assess the use of vacant lots for green infrastructure projects and complement economic development opportunities in planned redevelopment areas, including the Opportunity Corridor.

3.0 ENVIRONMENTAL JUSTICE POPULATIONS

3.1 LOW INCOME

According to the U.S. Census, in 2010, the median household incomes for the project study area neighborhoods were below those of the city, county and state (see **Exhibit 1** below). Likewise, the percentage of persons below the poverty level for all study area neighborhoods exceeds the averages for the county and state. All of the study neighborhoods, with the exception of University Circle, exceed the city average, as well (see **Exhibit 2, page 11**).

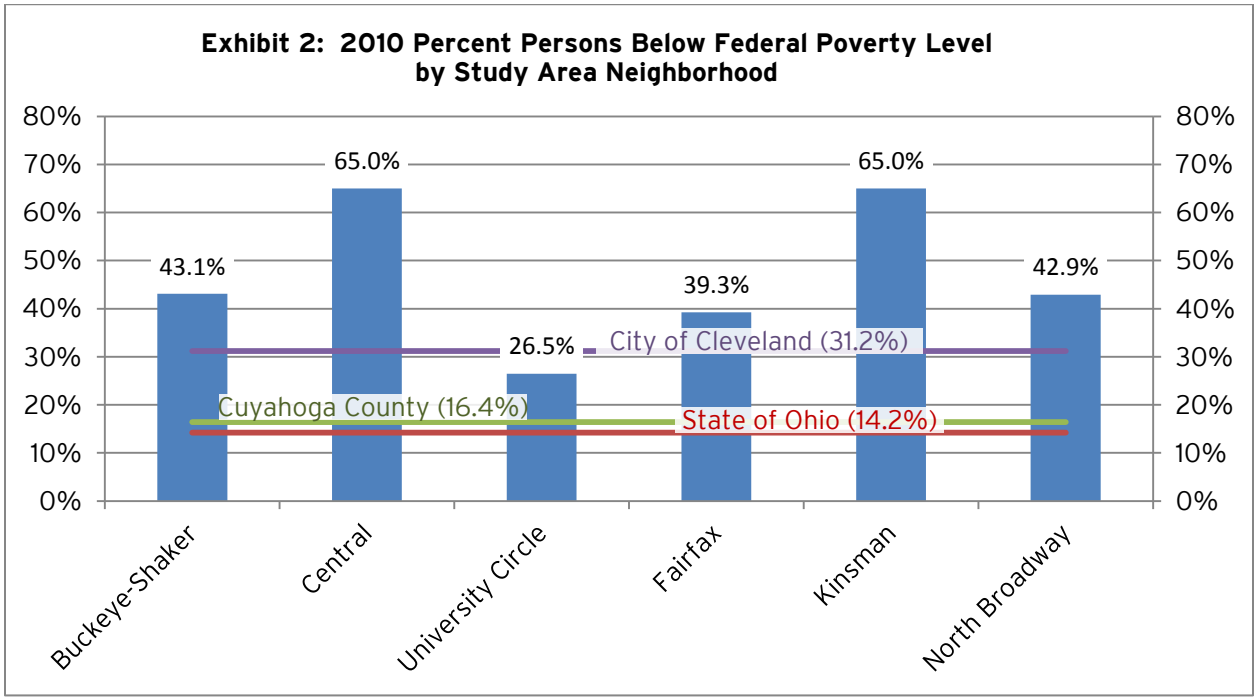
Exhibit 1: 2010 Median Household Income by Study Area Neighborhood



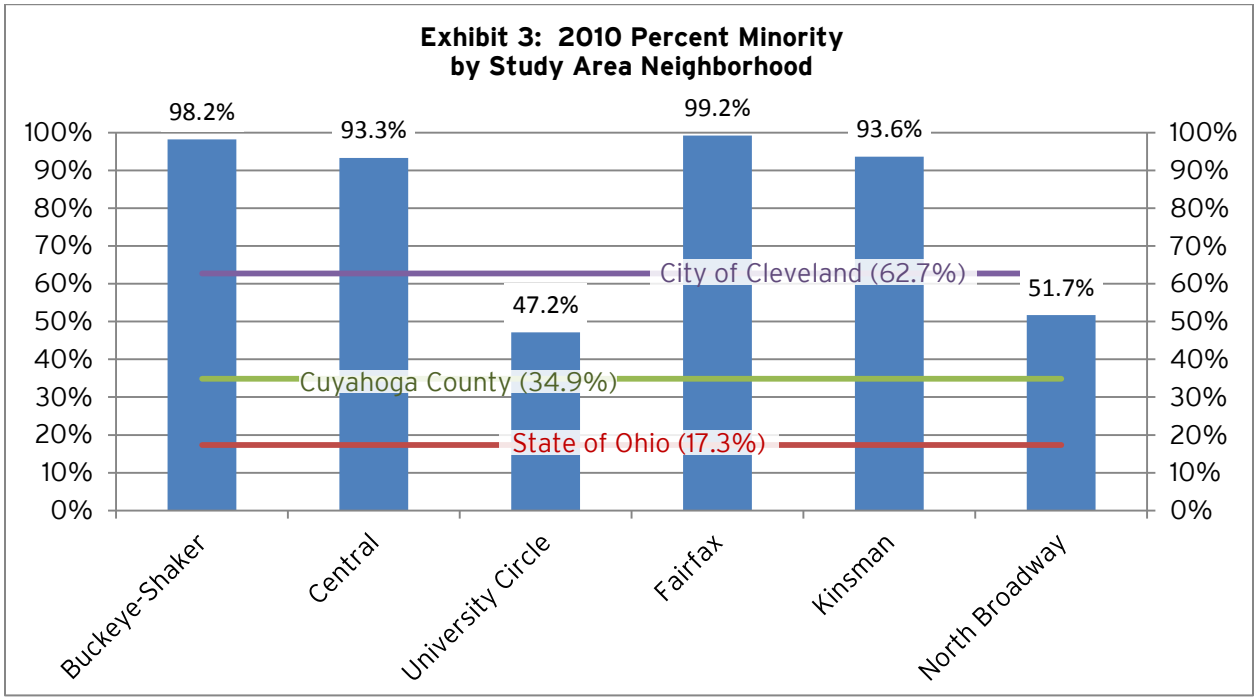
Source: *State, County, and City data based U.S. Census Bureau (Factfinder Quickfacts accessed on August 13, 2012)*
Neighborhood data based on 2006-2010 American Community Survey (Block Group data downloaded August 10, 2012)

3.2 MINORITY

According to the U.S. Census, in 2010, the percentage of minority residents within four of the six study area neighborhoods far exceeded the percentage of minority persons living in the City of Cleveland. The concentrations of minority residents in all of the study area neighborhoods exceeded county and state averages (see **Exhibit 3, page 11**).



Source: *State, County, and City data based U.S. Census Bureau (Factfinder Quickfacts accessed on August 13, 2012)*
Neighborhood data based on 2006-2010 American Community Survey (Block Group data downloaded August 10, 2012)



Source: *State, County, and City data based U.S. Census Bureau (Factfinder Quickfacts accessed on August 13, 2012)*
Neighborhood data based on 2006-2010 American Community Survey (Block Group data downloaded August 10, 2012)

3.3 ZERO AUTO HOUSEHOLDS

According to the U.S. Census, in 2010, approximately 40-percent of the occupied housing units within the study area had no vehicle available (see **Table 4** below). Renter occupied housing units accounted for the majority of these. The percentage of households with no vehicle available exceeded the rates for the city, county and state.

Table 4 2010 Percentage of Households with No Vehicle Available

Area	Total Occupied Housing Units	Owner Occupied – No Vehicles Available	Renter Occupied – No Vehicles Available	Total – No Vehicle Available
Study Area Neighborhoods	17,544	791	6,285	7,076
		4.5%	35.8%	40.2%
City of Cleveland	164,990	7,038	31,621	38,659
		4.3%	19.2%	23.4%
Cuyahoga County	529,942	15,199	53,161	68,360
		2.7%	10.0%	12.9%
Ohio	4,525,066	97,779	271,271	369,050
		2.2%	6.0%	8.2%
United States	114,567,419	2,511,982	7,885,018	10,397,000
		2.2%	6.9%	9.1%

Source: U.S. Census Bureau, 2010

3.4 PUBLIC INVOLVEMENT

The Opportunity Corridor study is being led by the Ohio Department of Transportation (ODOT) in close coordination with the City of Cleveland. As part of the preliminary engineering and environmental studies, the Project Team is using a context sensitive solutions (CSS) design process to proactively engage study area residents and business owners to provide input into the design of the proposed roadway. The overall goal is to develop a transportation facility that complements its surroundings. As part of this process, extensive stakeholder coordination has occurred, including residents, business owners, Community Development Corporations (CDCs), Greater Cleveland Partnership (GCP), Northeast Ohio Regional Sewer District (NEORSD), and Greater Cleveland Regional Transit Authority (GCRTA). Additionally, technical analyses and public involvement activities are closely coordinated with the Project Steering Committee (Steering Committee), which is comprised of organizations representing transportation interests in the Opportunity Corridor study area. Input provided at Steering Committee meetings has helped guide the development and analysis of the alternatives for the project. Steering Committee members represent the following organizations:

- Buckeye Area Development Corporation
- Residents of Buckeye Community
- Burten Bell Carr Development Corporation
- Case Western Reserve University
- City of Cleveland
- City of Cleveland Council (Wards 5, 6, and 12)
- Cleveland Clinic
- Cuyahoga County
- Cuyahoga County Department of Public Works
- Early Stage Partners, LP
- Residents of Fairfax Community
- Fairfax Renaissance Development Corporation
- Federal Highway Administration
- Greater Cleveland Partnership (GCP)
- Greater Cleveland Regional Transit Authority
- (GCRTA)
  Residents of Kinsman Community
- Maingate Business Development Corporation
- New Era Builders
- Northeast Ohio Areawide Coordinating
- Agency (NOACA)
  North Shore Federation of Labor
- Ohio Department of Development
- Ohio Department of Transportation (ODOT)
- Orlando Baking Company
- Slavic Village Development Corporation
- Residents of Slavic Village/St. Hyacinth
  Community
- State of Ohio
- The Cleveland Foundation
- The George Fund Foundation
- The Plain Dealer
- Residents of University Circle Community
- University Circle, Inc.
- University Hospitals

Because the entire project study area is comprised of low-income and minority neighborhoods, all stakeholder outreach efforts were aimed at engaging these populations. Throughout the study, several refinements to the public and stakeholder involvement process have been made to further enhance the level of engagement, with a specific focus on including low-income and minority residents. The Project Team also used several different tools and methods to reach out to neighborhood residents and business owners. The purpose of these efforts was to let the community know about the project, and to provide many chances to give input. The tools and methods used included fliers posted at places such as churches, community centers and recreational centers; written and verbal surveys; questionnaires; map and design exercises; one-on-one meetings; email blasts; media advisories; direct mailings; a project website; newspaper advertisements; and press releases. The study team also interviewed residents and workers to understand the role of local businesses within each neighborhood.

Members of the Project Team were specialized in neighborhood outreach and helped to plan outreach efforts and to determine how well they were working. Throughout the study, ODOT actively monitored the public involvement program and made changes when necessary to make sure the community was kept up to date and given chances to offer meaningful input. For example, the Project Team visited libraries, recreational centers, apartment complexes, and places of worship to talk with residents and workers about the project and the best ways to keep them informed. The Project Team used the feedback from these discussions when planning future public involvement efforts. The refinements included the following:

- Meeting sites were located as close as possible to residents and businesses;
- Meetings were held during the day to reduce security concerns, as well as to serve the elderly and small business owners that found it hard to attend during lunch and evening hours;
- Font sizes were increased to improve readability of project newsletters, presentations, and meeting exhibits;
- Newsletters were designed to use less words and more graphics;
- The mailing list was expanded using U.S. postal service data to send project-related information to both property owners and tenants; and
- Stamps were available at all public meetings so that participants could mail back comment forms without having to buy stamps.

Although the expansion of the project mailing list has not directly resulted in increased participation (as measured by meeting attendees), the continual monitoring and refinement of the public involvement process has allowed the Project Team to effectively engage stakeholders as part of the project development process.

An overview of the public involvement activities completed as part of the planning and design process for the Opportunity Corridor project is included below. The *Opportunity Corridor Public Involvement Summary* (January 2013) was updated following each major public involvement milestone. This report contains further details regarding meeting format, meeting content, advertising methods, as well as questions and comments submitted by the public.

- **September 2009 Public Meetings**

  Two public meetings were held on September 29, 2009. The public meetings were conducted during daytime and in the evening time periods to increase public attendance. The evening meeting was held for those who live in the study area and work during the day. The daytime meeting was held at Cleveland Play House during lunch hours (11:30 am to 1:30 pm) in an effort to make it convenient for those who worked in and around the study area. One hundred twenty-six (126) attendees signed in for the daytime meeting held at Cleveland Play House. The evening public meeting was held at Mt. Sinai Baptist Church, which is located in the central part of the study area. Mt. Sinai Church is a well-known church throughout the Cleveland area with a large, open meeting space and free adjacent parking. The 6:00 pm to 8:00 pm time period was chosen for the meeting as it is a typical time for public meetings in the Cleveland area. One hundred two (102) attendees signed in at the evening meeting held at Mt. Sinai Baptist Church. Several methods were used to advertise the meetings, including media advisories, newspaper advertisements, press releases, radio broadcasts, and flyers distributed via direct mailing. Of the 221 unique attendees, approximately 33-percent (72 of 221) signed-in using an address located within the study area.

  Each of the public meetings included an informal or “open house” session where attendees could browse exhibits and review information about the project. The meetings also included a

formal session where the study team provided an overview of the study process, the goals and objectives of the project, a summary of information gathered to date, and the Conceptual Alternatives. After the presentation, a formal question and answer session was held. The meetings concluded with additional time for participants to review the display boards and ask questions of the study team. The public was also given an opportunity to dictate comments to a court reporter or submit written comments via a project comment sheet or email.

- **Step 5 Business Coordination Meetings**

  A business coordination meeting was held on the morning of December 8, 2009 to provide an opportunity for the local business community to learn about the project. The meeting was held at the Cleveland Clinic Playhouse with a format similar to that of the public meetings. During the meeting, a questionnaire was distributed to help the study team plan future public involvement activities, develop a better understanding of the community, and understand the role that various transportation modes play within the community, as well as how transportation investments could affect this role. Following the meeting, a copy of the public meeting materials (handout, comment sheet, and study area map) was mailed to all business that were located within the study area, but did not attend. Twenty-five (25) individuals representing 20 local businesses attended the business coordination meeting. Of the 20 businesses, eight were located within the project study area.

  Individual meetings were also conducted with area businesses, including Orlando Bakery, Miceli's Dairy, Brost Foundry, Quality Stamping, ACME Krivanek Iron Works, and Forge Products. Members of the study team also performed informal interviews with other local businesses within the study area, including Mz. De' Ledari' Unisex Salon, Danzy Discount, Northeast Video, Harvest Day Care, McTech Corporation and Family Dollar.

- **Neighborhood Coordination Meetings**

  Meetings were also held in each of the five neighborhoods located in the study area. These meetings, which were held between November 2009 and March 2010, included the neighborhoods of Fairfax, University Circle, Slavic Village (St. Hyacinth), Kinsman, and Buckeye. A similar meeting format was used in each neighborhood, with the primary purpose being to share information with the residents, give residents an opportunity to ask questions regarding the project, and allow the study team an opportunity to develop a better understanding of the community. Where time allowed, a breakout session was then held during which the attendees broke into small groups with the members of the study team. The study team led a map exercise and a CSS exercise, and participants completed a questionnaire distributed at the meeting. Residents who attended the meetings were encouraged to submit comments at the meeting or using a self-mailer form with pre-paid postage.

  A total of two hundred and five (205) individuals signed in at the neighborhood coordination meetings. Attendance at individual meetings was as follows: twenty-six (26) individuals attended the Fairfax neighborhood meeting held at the Langston Hughes Center; thirty-nine (39)

individuals attended the University Circle neighborhood meeting held at Judson Manor; twenty-six (26) individuals attended the Slavic Village (St. Hyacinth) neighborhood meeting held at Edgewood Park; fifty-one (51) individuals attended the Kinsman neighborhood meeting held at Elizabeth Baptist Church; and sixty-three (63) individuals attended the Buckeye neighborhood meeting held at Blessed Hope Missionary Baptist Church.

- **October 2010 Public Meetings**

  A second series of public meetings were held on October 5, October 6, and October 7, 2010. These meetings were held on three consecutive days to avoid confusion about the material that was presented. For the second series of meetings, strengths and weaknesses of the first round of public meetings were taken into consideration to improve and refine the coordination and communication methods. In an attempt to increase public attendance, six public meetings were held within a three-day time-frame during morning, mid-day, afternoon, and evening time periods. The meetings—which used the same format and presented the same information—were held at four different locations within or in close proximity to the study area. The specific meeting schedule was as follows:

  - Tuesday, October 5, 2010 - 6:00 pm to 8:00 pm
    Mt. Sinai Baptist Church, 7510 Woodland Avenue
  - Wednesday, October 6, 2010 - 8:00 am to 10:00 am
    Kenneth L. Johnson Recreation Center, 9206 Woodland Avenue
  - Wednesday, October 6, 2010 - 11:00 am to 1:00 pm
    Kenneth L. Johnson Recreation Center, 9206 Woodland Avenue
  - Wednesday, October 6, 2010 – 6:00 pm to 8:00 pm
    Edgewood Park, 3215 E. 55th Street
  - Thursday, October 7, 2010 – 4:00 pm to 6:00 pm
    John Hay High School, 2075 Stokes Boulevard
  - Thursday, October 7, 2010 – 6:00 pm to 8:00 pm
    John Hay High School, 2075 Stokes Boulevard

  Meeting attendance was as follows: thirty-three (33) attendees signed in at the evening meeting at Mt. Sinai; nine (9) attendees signed in at the morning meeting at Kenneth L. Johnson Recreation Center; twenty (20) attendees signed in at the afternoon meeting at Kenneth L. Johnson Recreation Center; twenty (20) attendees signed in at the evening meeting at Edgewood Park; thirteen (13) attended the late afternoon meeting at John Hay High School; and fourteen (14) attendees signed in at the evening meeting at John Hay High School. A total of one hundred nine (109) unique individuals signed in at the second series of public meetings. Approximately 29-percent (32 of 109) signed-in using an address located within the study area.

  Several methods were used to advertise the meetings, including email blasts, media advisories, press releases, newspaper advertisements, and a project newsletter distributed in advance of the meetings.

Each of the public meetings included an informal or "open house" session where attendees could browse exhibits and review information about the project. The meetings also included a formal session where the study team provided an overview of the information gathered to date, the land acquisition process, the conceptual alternatives, evaluation of each alternative, and recommendations for further study. After the presentation, a formal question and answer session was held. The question and answer session was transcribed by a court reporter. The meetings concluded with additional time for participants to review the display boards and ask questions of the study team. The public was also given an opportunity to dictate comments to a court reporter or submit written comments at the meeting or via a self-mailer form with pre-paid postage. The public could also submit comments via email. Following the meetings, the public was allotted two weeks to submit comments about the project. The meeting presentation, exhibits, and comment sheet were also posted on the project website to provide those unable to attend the meetings with an opportunity to review and submit comments. Hard copies of the newsletter and *Conceptual Alternatives Study* report were also delivered to the Woodland, Martin Luther King Jr., and Garden Valley branches of the Cleveland Public Library in advance of the meetings to provide additional opportunities for review and comment.

- **July 2011 Public Meetings**

  A third series of public meetings was held July 26 through July 28, 2011. In an effort to increase public attendance, meetings were scheduled at three different locations in the proximity of the study area, as well as at various times of the day. The same exhibits and presentations were presented at all meetings. The specific meeting schedule was as follows:

  - Tuesday, July 26, 2011 - 2:00 pm to 4:00 pm
    Calvary Hill Baptist Church, 2171 East 103rd Street
  - Tuesday, July 26, 2011 - 6:00 pm to 8:00 pm
    Calvary Hill Baptist Church, 2171 East 103rd Street
  - Wednesday, July 27, 2011 - 6:00 pm to 8:00 pm
    Elizabeth Baptist Church, 6114 Francis Avenue
  - Thursday, July 28, 2011 - 6:00 pm to 8:00 pm
    Mt. Sinai Baptist Church, 7510 Woodland Avenue

  Meeting attendance was as follows: forty-four (44) attendees signed in at the afternoon meeting at Calvary Hill Baptist Church; thirty-nine (39) attendees signed in at the evening meeting at Calvary Hill Baptist Church; forty-six (46) attendees signed in at the evening meeting at Elizabeth Baptist Church; and sixty-eight (68) attendees signed in at the evening meeting at Mt. Sinai Baptist Church. In total, one hundred ninety-seven (197) unique individuals signed in at the third series of public meetings (three (3) individuals signed in at multiple meetings). Approximately 29-percent (57 of 197) signed-in using an address located within the study area.

Several methods were used to advertise the meetings, including media advisories, newspaper advertisements, email blasts, and flyers distributed via a direct mailing and made available at public venues throughout the area.

Each of the public meetings included an informal or "open house" session where attendees could browse exhibits and review information about the project. A computer was also set-up to play a continuously looping video of a traffic simulation of the proposed quadrant roadway near E. 55th Street to allow meeting attendees to visualize how it would operate. The meetings also included a formal session where the study team provided an overview of the information gathered to date, evaluation of each remaining alternate, the land acquisition process, and the Recommended Preferred Alternative. After the presentation, a formal question and answer session was held. The question and answer session was transcribed by a court reporter. The meetings concluded with additional time for participants to review the display boards and ask questions of the study team. The public was also given an opportunity to dictate comments to a court reporter or submit written comments at the meeting or via a self-mailer form with pre-paid postage. The public could also submit comments via email. Following the meetings, the public was allotted two weeks to submit comments about the project. The meeting presentation, exhibits, project brochure, traffic simulation of the quadrant roadway near E. 55th Street, and comment sheet were also posted on the project website to provide those unable to attend the meetings with an opportunity to review and submit comments.

During the course of the public involvement activities, two potential issues were raised with regard to Environmental Justice. In one instance, a few residents expressed concern that the Opportunity Corridor project was solely intended to benefit regional users through a more direct and efficient connection between the Interstate highway system and University Circle. A *Purpose and Need Statement* (HNTB, 2011) was developed for the Opportunity Corridor project. Although regional access is an identified need, local needs are identified, as well. The proposed urban boulevard must also improve multi-modal connectivity and access within the study area neighborhoods. Additionally, the proposed project is intended to support the City of Cleveland's planned economic development within the study area. By addressing these needs, the proposed project would provide an equitable distribution of benefits to both local and regional users. Further discussion of potential benefits and positive impacts of the project is included in **Section 4.0** as part of the impact assessment.

The second potential issue raised was that lower-income residents displaced by the proposed project may not be able to afford to relocate. This potential issue was evaluated in detail as part of the impact assessment, see **Section 4.3.1**.

Feedback received from agencies, the public and other stakeholders during the public involvement process led to several changes to reduce impacts, improve the look of the roadway and best meet the community's priorities and needs. Discussion of the specific avoidance and minimization measures that were incorporated into the project design can be found in **Section 4.4**.

Further details regarding the public involvement activities and the feedback received from stakeholders and the general public can be found in the *Opportunity Corridor Public Involvement Summary* (January

2013) for the project. This document has been updated throughout the study process to record the input received during public involvement activities, as well as to refine the future plan for public participation.

4.0 EFFECTS ASSESSMENT

4.1 INTRODUCTION

The following sections provide a summary of the potential effects to low-income and minority populations that could result from the Preferred Alternative. As a basis of comparison, a discussion of the potential effects of the No Build Alternative is also provided.

According to Federal guidance documents, a disproportionately high and adverse effect is defined as one that is:

- Predominantly borne by a minority population and/or low-income population; or
- Suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority/non-low-income population.

All of the neighborhoods in the project study area contain concentrations of low-income and/or minority populations that exceed city, county and/or state averages (see **Section 3.0**). The characteristics of the project study area are such that any projects—including the proposed Opportunity Corridor project—would have an effect on low-income and minority populations. The anticipated potential effects associated with the No Build Alternative and the Preferred Alternative prior to the incorporation of mitigation and enhancement measures are summarized in the following sections.

4.2 NO BUILD ALTERNATIVE

Although the No Build Alternative would not construct the Opportunity Corridor project, it would include minor, short-term, and routine safety and maintenance efforts that regularly occur. Given the relatively limited scope of the No Build Alternative, the context and intensity of the potentially negative direct impacts would be less severe than the impacts for the Preferred Alternative. However, certain adverse effects on minority and low-income residents in the study area would arise as a result of transportation needs unmet by the No Build Alternative. These needs include a lack of access and mobility between the Interstate highway system and University Circle. The identified transportation needs have contributed to the steady decline in population and job opportunities found within the project study area. As a result, vacancy rates have increased, which in turn has diminished community cohesion and aesthetic appeal of the study area. The No Build Alternative would not provide the necessary transportation infrastructure to support the planned revival and redevelopment of this historically underserved and economically depressed area of the City of Cleveland. Consequently, the recent trend of decline could continue into the future as part of the No Build Alternative. The No Build Alternative would also be characterized by impaired mobility on existing roadways, congestion at

existing intersections such as I-490/E. 55th Street and E. 55th Street/Woodland Avenue/Kinsman Boulevard, and longer travel times resulting from circuitous routes.

4.3 PREFERRED ALTERNATIVE

Figures 5a through **5d, Appendix A** show the preliminary design of the Preferred Alternative, including the proposed alignment, preliminary right-of-way, temporary right-of-way, and anticipated property impacts. **Exhibit 4, Appendix A** summarizes the anticipated structure and dwelling unit impacts for the Preferred Alternative. This information was used to assess the potential for direct community impacts. The findings of this assessment are summarized in the following text.

4.3.1 Displacements

The proposed project would result in residential and business relocations, including the Greater Roman Baptist Church. None of the other community resources listed in **Section 2.2** would be displaced. Although residential relocations could change the student enrollment numbers and demographic compositions of the schools, these changes are not anticipated to be significant. A summary of the estimated displacements by neighborhood is included in **Table 5, below.**

Table 5 Estimated Displacements by Study Area Neighborhood

Neighborhood	Residential		Commercial		Faith-based
	Structures	Units	Structures	Occupants	Structures
Central	0	0	0	0	0
Kinsman	24	24	12	7	1
Slavic Village	35	43	3	2	0
Fairfax	3	3	7	4	0
Buckeye	0	0	0	0	0
University Circle	2	6	3	3	0
Total	**64**	**76**	**25**	**16**	**1**

Notes: Field survey conducted on 08/02/2012 to confirm presence of dwelling units/structures. No verification of occupancy was completed. Commercial impacts are noted in active businesses.

Two of the commercial businesses impacted by the proposed project are local convenience stores (PNG Supermarket and Northeast Video). These facilities primarily sell convenience items such as soft drinks, snacks, cigarettes, and frozen foods. Based on interviews conducted by local CDC's, neither PNG Supermarket (**Exhibit 5, page 21**) nor Northeast Video (**Exhibit 6, page 22**) is considered to be a primary food provider within the community. According to the City's GIS database, the square footage of PNG Supermarket building—located at 2249 E. 105th Street—is approximately 2,200 square feet. Site visits revealed that PNG Supermarket does sell some fresh produce. However, there are two other stores

within approximately 0.4 miles that sell comparable food items. One is located at E. 93rd Street/Quincy Avenue, and the other is located at E. 97th/Cedar Avenue. The square footage of Northeast Video building—located at 5705 Francis Avenue—is approximately 1,800 square feet. During public involvement activities, no major concerns were expressed by local residents or the general public regarding the potential displacement of these two commercial businesses. Therefore, no significant community impacts are anticipated as a result of these relocations.

Exhibit 5: Photo of PNG Supermarket

Exhibit 6: Photo of Northeast Video

The Greater Roman Baptist Church is located at 8709 Buckeye Road. The church is located within a previous commercial building with an approximate area of 3,400 square feet (**Exhibit 7, page 23**). Although the displacement of the church could have a negative effect on community cohesion, no major concerns regarding its potential relocation were expressed by either local residents or the general public. Therefore, no significant community impacts are anticipated to result from the relocation of the Greater Roman Baptist Church.

Exhibit 7: Photo of Greater Roman Baptist Church

Based on a Relocation Assistance Program (RAP) survey completed for the project, it is anticipated there are feasible relocation sites for displaced residential uses and commercial businesses available both within and adjacent to the study area. This assessment of the local market was conducted within a five mile radius of the study area; therefore, residents and commercial businesses displaced by the Opportunity Corridor project could be relocated within a five mile radius of their current locations and existing community services, if they so choose.

Based on input received during public meetings, residents are concerned that relocation within existing financial means would be difficult. Due to the overall real estate market conditions, several residents are also concerned with upside down mortgages. There are existing mechanisms in place to address these concerns. Acquisition of private property and the resulting displacement of residences, commercial businesses, and faith-based organizations to construct the proposed Opportunity Corridor would be regulated by the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (Uniform Act). The Uniform Act was passed by Congress to provide uniform and equitable treatment for persons whose property is acquired for public use. In addition to receiving just compensation for any property acquired to construct the project, displaced property owners would also receive relocation assistance. There are also provisions to ensure that decent, safe, and sanitary comparable replacement housing is within the

financial means of the displaced person. When such housing cannot be provided using replacement housing payments that exceed maximum identified amounts, the Uniform Act provides "housing of last resort" to provide agencies with the flexibility necessary to respond to difficult or unique displacement conditions. Additionally, the U.S. Department of Transportation has issued a temporary waiver to deal with situations of negative equity which exist in current real estate market conditions. This waiver, which expires December 31, 2014, was issued to minimize hardship caused when residents are forced to relocate to accommodate a public improvement project.

The displacement of existing residences could change access and transportation choices for populations that are heavily dependent upon transit services. However, because appropriate replacement housing exists on the open market, affected residents could choose to relocate within the same neighborhood.

Conclusion: Negative impact due to displacement of existing homes, commercial businesses, and one faith-based organization.

4.3.2 Physical Aspects

Communities within the study area have been subject to steady decline during the past several decades as businesses have closed or relocated, employment opportunities have declined, and population has decreased. This trend, which is occurring regardless of the proposed project, is changing the community characteristics. The relatively high number of vacant parcels (see **Figure 3, Appendix A**) in the project study area has transformed areas that once supported strong, cohesive communities into areas dominated by isolated residences, neglected properties, and incompatible land uses. Recognizing these negative trends, the City of Cleveland has stepped up its efforts to increase economic development and investment in this area. The City of Cleveland—working in coordination with the Ohio Department of Transportation and the Federal Highway Administration—has identified the Opportunity Corridor project as a specific initiative intended to help achieve the overall objectives associated with redevelopment and revitalization of the study area. The proposed project is one component of an overall strategy that would improve the quality of life for communities within and adjacent to the study area.

One of the primary areas of project-related residential impacts would occur in the Slavic Village neighborhood located immediately east of E. 55th Street. Over half (approximately 55-percent) of the residential relocations resulting from the project would occur in this neighborhood. According to 2010 U.S. Census data, approximately 66-percent of the housing units in Slavic Village are rentals. Overall, it is estimated that approximately 65-percent of the study is comprised of rental units[2]. This data, as well as

[2] Estimate developed using 2010 U.S. Census data found in the U.S. Environmental Protection Agency's EJView mapping tool. EJView uses an area-weighted method of population estimation. Population and housing statistics are created by overlaying the specified study area (buffered point, user-digitized polygon or map window) with the appropriate Census summary level geography. For each Census polygon, the respective population values are adjusted proportionally (area-weighted) based on the percentage of the polygon that lies within the study area. This method assumes an even distribution of population over each Census geographic unit. The accuracy of the method depends on how even the population distribution actually is and on the size of the geographic units. This is

the high number of vacant parcels in the project study area, suggests that community cohesion is already compromised. Therefore, although some residences and businesses would be displaced, the proposed project would not result in an overall negative impact to community cohesion, as historic decline has already resulted in fragmentation of these areas. In addition, there will not be any physical encroachment of the community resources listed in **Section 2.2** – with the exception of the Greater Roman Baptist Church, which will be relocated.

Some existing residences and businesses may also be displaced by future economic development that could be facilitated by the project. Should existing residents choose to relocate, the RAP survey indicated that replacement housing would be available in nearby neighborhoods. As a result, residential land uses could be consolidated within the remaining local neighborhoods, providing the in-fill necessary to strengthen and improve community cohesion. Additionally, non-residential in-fill development supported by the proposed project could enhance access to employment opportunities for existing local residents. By restoring the vitality and strengthening the existing cohesion within established neighborhoods, this planned redevelopment and in-fill would provide an overall positive indirect effect. These anticipated changes would also help to reverse the historic trend of disinvestment and depletion of community resources. However, the proposed project is only a single element of an integrated strategy, and several other actions will be necessary for the City to realize its future vision for the project study area.

Portions of the proposed project would be constructed on new alignment and would result in redistribution of traffic within the study area. Consequently, some areas are predicted to experience an increase in traffic noise as a result of the project. A detailed traffic noise analysis was completed as part of the Federal environmental review process. As part of this analysis, mitigation measures were evaluated for predicted noise impacts in accordance with current Ohio Department of Transportation (ODOT) noise policy. Further information associated with the noise analysis and evaluation of noise mitigation measures can be found in the *Opportunity Corridor Noise Analysis Report* (December 2012). Recommended noise mitigation measures are further discussed in **Section 4.4**.

The study area is urbanized with existing transportation infrastructure, including active freight and passenger rail lines. Therefore, it is anticipated that any noise impacts would be relatively moderate in nature. In accordance with ODOT's *Standard Procedure for Analysis and Abatement of Highway Traffic Noise*, public input will be solicited regarding whether noise barriers are desired and the aesthetics of the walls, if appropriate.

A project-level air quality analysis was also completed as part of the Federal environmental review process. This analysis included qualitative consideration of Mobile Source Air Toxics (MSATs) as well as quantitative carbon monoxide (CO) analysis. The findings and conclusions of these analyses are discussed in separate technical memoranda; however, the proposed project is not anticipated to result in a violation of National Ambient Air Quality Standards (NAAQS). As part of the air quality analysis,

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the best population estimation method available without having additional information about the population distribution.

FHWA, EPA, ODOT, and Ohio EPA have determined that the proposed project does not represent a project of air quality concern for particulate matter ($PM_{2.5}$). The air quality analysis found that the proposed project may increase MSAT emissions in some locations, likely along the new roadway sections that would be built between E. 55th Street and Quincy Avenue, as well as along E. 105th Street between Quincy Avenue and Chester Avenue. However, overall, MSAT emissions within the study area are expected to decrease in the future because EPA-required vehicle and fuel regulations will begin to take effect. The Ohio EPA has agreed with the conclusion that the Opportunity Corridor project meets the criteria of a project with "Low Potential for MSAT effects." Further information associated with the air quality analysis can be found in the *Opportunity Corridor CO and $PM_{2.5}$ Hot-Spot Analysis Report* (November 2012) *and the Opportunity Corridor Qualitative Mobile Source Air Toxics (MSAT) Analysis Report* (November 2012).

Temporary effects such as dust and construction noise may be detected by the study area residents and business-owners during construction activities associated with the proposed project. These effects, if any, would be temporary and would cease upon completion of construction.

Conclusion: Negative impact due to residential and commercial business relocations, as well as predicted increases in traffic noise.

4.3.3 Visual Environment

To design a roadway that fits within and is coordinated with its surroundings, the proposed Opportunity Corridor is following a context sensitive solutions (CSS) design approach. As part of the CSS design process, the Project Team has coordinated extensively with stakeholders. As the final design of the project progresses, visual elements such as landscaping and lighting will continue to be coordinated with the project stakeholders. Public input will be solicited regarding whether noise barriers will be implemented as part of the project. During this outreach, the public will also have the opportunity to provide input on the aesthetics of any potential noise barriers. The project will also be designed in accordance with the City of Cleveland's *Streetscape Design Guidelines Handbook.* Through the iterative CSS design process, several elements have been incorporated into the design to minimize negative impacts, as well as to improve functionality of the transportation facility and visual environment of the study area. These elements include multi-modal facilities such as a sidewalk and a multi-use path; mast arm traffic signal supports; combined street and pedestrian lighting; grass tree lawns (parkways); street trees; roadway median with stormwater treatment measures; retaining walls and bridge abutments with form-liner surfaces and colored surface sealer; and designated locations for streetscape amenities such as benches, trash receptacles, and bike racks. **Figures 6a** through **6d, Appendix A** show the typical urban boulevard cross-sections, including how the CSS design elements have been incorporated into the design.

Conclusion: Positive impact due to incorporation of visual design elements resulting from public involvement opportunities and CSS design process.

4.3.4 Land Use

The proposed project would directly and permanently convert approximately 46.9 acres of existing land to transportation use. This conversion would be relatively minimal in nature when compared to the overall amount of land available for development and redevelopment within and around the project study area. Approximately 20-percent (10.2 acres) of the land required to construct the proposed project is owned by the City of Cleveland Land Bank, which assembles and sells parcels for development that will contribute to the economic, social, and environmental betterment of the City and will improve the quality of life for its citizens. Furthermore, some of the land to be converted is currently neglected and/or brownfield. The proposed project will help clean up brownfield sites and will therefore have a positive direct impact on land use.

In 2011, the Greater Cleveland Partnership (GCP) commissioned a "High-level Land Use Analysis and Economic Impact Analysis" to evaluate the potential complementary economic benefits associated with the proposed Opportunity Corridor project. The study compiled information to make projections about the feasibility and extent of economic development opportunities that could be supported by the project. This effort provided the City and GCP with information to understand the potential for land use changes resulting from the project.

The GCP study also concluded that potential land use changes could consist of a mix of residential, service, office, and light industrial development/redevelopment. This would provide a positive cumulative effect by eliminating areas of fragmented and often incompatible land use that currently exist and creating areas of common, complementary land use. Light manufacturing uses would remain and expand into adjacent areas as appropriate. Retail and office uses would occur along roadway frontages. Some existing—although fragmented—residential areas would be replaced with light manufacturing and/or office space. This planned transition of residential to non-residential land use would occur gradually over several years as land ownership changes naturally occur. In the interim, existing land owners could benefit from the ongoing development/redevelopment efforts by the City.

The potential land use changes described above are consistent with current trends, the City's comprehensive plan, and recent revitalization efforts by both the City and GCP. The Cleveland Clinic and other University Circle institutions have historically been a major influence on development activities and land use change within the eastern limits of the project study area. This influence is anticipated to continue and is not contingent on implementation of the proposed project. Furthermore, the combined revitalization efforts of the City and GCP are focused on promoting development within the "Forgotten Triangle," regardless of whether the Opportunity Corridor project is implemented. However, the project is anticipated to accelerate the timing and intensity of land use change.

Conclusion: Negative impact due to direct conversion of some land to transportation use. Positive impact due to potential reuse of neglected and brownfield properties as part of the proposed project, as well as the supporting role of the project in planned land use change.

4.3.5 Economic Conditions

The proposed project would result in the potential displacement of 16 existing commercial businesses. A summary of those businesses is shown in **Table 6, below**. Based on public input to date, the relocation of these businesses should not adversely affect critical community services. According to the Relocation Assistance Program (RAP) survey completed for the project, it is anticipated there are feasible relocation sites for displaced commercial uses available both within and adjacent to the study area. This assessment of the local market was conducted within a five mile radius of the study area; therefore, businesses displaced by the Opportunity Corridor project could be relocated within a five mile radius of their current locations, if they so choose.

Table 6 Estimated Business Impacts by Study Area Neighborhood

Business Name	Neighborhood
JBI Scrap Processors	Slavic Village
Northeast Video	Slavic Village
Paris Foods	Kinsman
Amclo Inc.	Kinsman
Final Cut	Kinsman
Super Service	Kinsman
Peacock Autobody	Kinsman
Cleveland City Club Center	Kinsman
Bruder Inc	Fairfax
CBF Industries	Fairfax
Car Wash	Fairfax
Mattress Store	Kinsman
Joe's Garage	Fairfax
Baby Boy Dogs	University Circle
Automotive Repair	University Circle
PNG Supermarket	University Circle

Source: Cuyahoga County GIS

As part of the design, extensive coordination was completed with the City of Cleveland and other stakeholders to develop a design that supports planned expansions of major employers within the project study area. As a result, the proposed project will support the planned expansions of two major project study area employers – Miceli's Dairy and Orlando Bakery. Together, the planned expansions of these two businesses will retain an estimated 170 existing jobs as well as add an estimated 75 jobs over the next five years. Additionally, the increased access and mobility provided by proposed Opportunity Corridor would directly benefit these two major employers. These positive effects should help temper the negative effects of the anticipated commercial displacements that would result from the construction of the proposed project.

There may be some temporary economic benefit during the construction of the proposed project due to increased opportunities for local construction services employees and increased revenue for businesses providing services to construction crews. Should the proposed project be advanced for construction, residents indicated a strong desire for project contractors to use local workforce as much as possible.

The study area is one contributing element to the tax base of the City of Cleveland. Although there would be some residential and business relocations as part of the proposed project, it is anticipated that any potentially negative effects to the City of Cleveland and Cuyahoga County tax base would be negligible. Rather, the planned complementary development that would result from the infrastructure investment in coordination with other City-led initiatives could provide a relatively large indirect and cumulative benefit to the local tax base. The proposed project could negatively affect property values for some residences located in close proximity to the proposed urban boulevard. On the other hand, the proposed roadway would create new frontage that could be attractive to potential commercial and industrial businesses and could raise property values.

The proposed boulevard is anticipated to support planned economic development as one of several distinct actions that must be coupled with the right market conditions. Future economic growth would increase the tax base, which could increase property values within the study area. Although future economic conditions cannot be predicted with any certainty, it is possible that increased property values could result in an increased tax and which could be a negative impact on residents in low-income areas. On the other hand, increased property values could also provide property owners the opportunity to sell within existing neglected areas.

Conclusion: Positive impact due to overall positive effects of planned complementary growth which would be supported by the proposed project.

4.3.6 Mobility and Access

The proposed project would improve access through construction of a direct connection between the Interstate highway system and the local neighborhoods, including University Circle. The proposed project would also improve mobility by providing infrastructure designed for the trucks servicing the industry within the study area and providing acceptable levels of service at existing congested locations.

The proposed project would result in some impacts to the local transportation network. However, it will not permanently and negatively affect access to any of the community resources listed in **Section 2.2**.

A summary of the proposed changes to the local streets is included below:

- Francis Avenue – closure between E. 55th Street and E. 57th Street;
- Berwick Road – cul-de-sac;
- Colfax Road – cul-de-sac;
- E. 73rd Street – cul-de-sac;
- Rawlings Avenue – cul-de-sac and closure between E. 75th Street and E. 79th Street;
- Lisbon Road – cul-de-sac and connection with Grand Avenue near Evarts Road;

- Tennyson Road – closure between Evarts Road and Buckeye Road;
- E. 87th Street – closure between Buckeye Road and Woodland Avenue;
- E. 89th Street – closure between Woodland Avenue and Nevada Avenue; and
- Quincy Avenue – closure between E. 105th Street and Woodhill Road.

Several of the proposed changes to the local transportation network are necessary to accommodate both the construction and operation of the quadrant roadway at E. 55th Street and Woodland Avenue as a continuous east-west arterial street. Avoidance and minimization alternatives were developed and coordinated with project stakeholders to fully understand community concerns and interests. During this coordination, the project stakeholders indicated that it was important to provide full access at E. 55th Street and to maintain the Woodland Avenue as a continuous street. Any potentially negative effects to access and mobility due to the associated closures of low volume neighborhood streets should be minor and localized. Appropriate alternative access to homes and businesses would be provided as part of the proposed project. The possible exception to this is the proposed closure of Quincy Avenue between E. 105th Street and Woodhill Road. However, the proposed boulevard would provide a similar substitution to the connection that Quincy Avenue provides between E. 105th Street and Woodhill Road. Furthermore, any resulting negative effects will be minimized to the greatest extent possible through inclusion of provisions to maintain access for bicycle, pedestrian, emergency service providers.

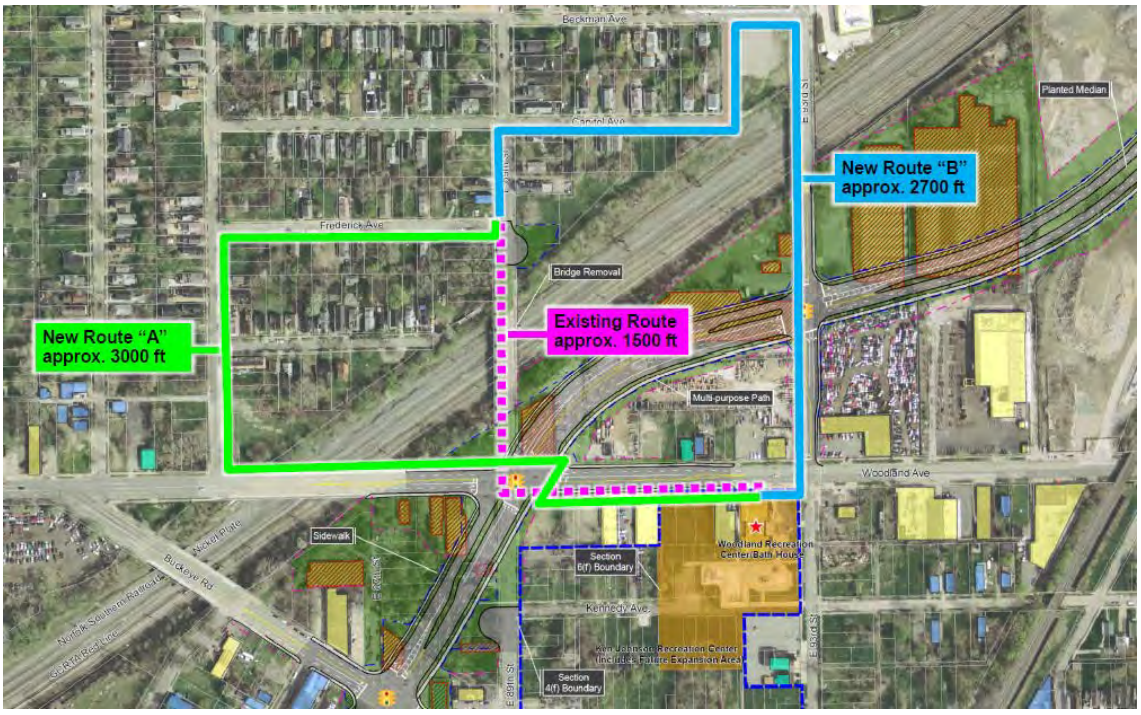
A goal of the proposed action is to support existing City and Northeast Ohio Areawide Coordinating Agency (NOACA) planning initiatives by providing multi-modal options. The proposed urban boulevard would include wide outside travel lanes for shared use with bicycle traffic. It would also include a multi-use path on the south side of the roadway and a sidewalk on the north side of the roadway. In general, these new facilities will improve connectivity and access to existing transit and community facilities for all users within the study area. However, in two specific areas, the proposed project would result in a longer routing for pedestrians:

- E. 55th Street: The grade separation of E. 55th Street and construction of the quadrant roadway would increase biking/walking distance for some neighborhood residents accessing the E. 55th Street GCRTA Station (**Exhibit 8, page 31**). The maximum increase in travel distance would be approximately 0.2 miles (1,000 feet) for residents on the northern edge of the neighborhood. The increase in travel distance would be substantially less for residents located further south in the neighborhood. There would be almost no increase in walking distance for residents along and south of Francis Avenue.

- E. 89th Street: The construction of the new boulevard would require the removal of the existing E. 89th St. bridge over the NS/GCRTA rail trench. The removal of this bridge would increase biking/walking distance between the Ken Johnson Recreation Center and the neighborhoods to the north (**Exhibit 9, page 31**). The maximum increase in travel distance would be approximately 0.3 miles (1,500 feet) for residents near E. 89th/Fredrick Avenue. The increase in travel time would be less for other residents.

Exhibit 8: Increased Biking/Walking Distance at E. 55th Street

Exhibit 9: Increased Biking/Walking Distance at E. 89th Street



In some areas, residents and business-owners would have to traverse a new urban boulevard to travel within the study area. However, the proposed design would include appropriate pedestrian and bicycle crossings to safely facilitate these movements.

As noted previously, approximately 40-percent of the occupied housing units within the study area had no vehicle available. Therefore, those living in the study area are heavily dependent upon transit. In addition to the specific core transportation elements to be addressed, the Opportunity Corridor project would also accomplish the following objectives related to transit and multimodal users:

- Improving connectivity among transit facilities such as the existing Greater Cleveland Regional Transit Authority (GCRTA) rapid transit and bus stations;
- Supporting redevelopment plans that could increase patronage within the existing transit system;
- Providing multiple transportation mode options by including safe bicycle- and pedestrian-friendly facilities in the project design; and
- Improving connections to existing and planned multimodal facilities in and near the study area.

Specifically, the proposed project would also benefit public transportation users through increased multi-modal connectivity to existing Greater Cleveland Regional Transit Authority (GCRTA) rapid transit stations and bus stops. Within the study area, bus service is provided along the following surface arterial streets:

- E. 55th Street;
- E. 79th Street;
- E. 105th Street;
- Euclid Avenue;
- Stearns Road;
- Martin Luther King Jr. Drive;
- Cedar Avenue;
- Quincy Avenue; and
- Kinsman Road.

The following GCRTA rapid transit stations exist within the project study area (see **Figure 4, Appendix A**):

- E. 55th Street Station (Red and Blue/Green Lines);
- E. 79th Street Station (Red Line);
- E. 79th Street Station (Blue/Green Line); and
- E. 105th Street/Quincy Avenue Station (Red Line).

A goal of the proposed action is to improve the operation of public transportation by improving connectivity to existing facilities, such as the existing GCRTA stations, and supporting redevelopment plans that will increase patronage within the system. Additionally, ODOT and the City of Cleveland coordinated with the GCRTA to determine if bus service would be feasible within the corridor. At this time, GCRTA does not plan on implementing bus service along the proposed boulevard due to the

existence of bus service on several of the intersecting surface arterial streets, as well as the service provided by the Red and Blue/Green rail lines. These existing services are oriented such that they would basically compete for ridership with any new bus service along the project corridor. GCRTA has indicated that this decision could be reevaluated in the future, if demand warrants.

Conclusion: Negative impact through increased pedestrian routing in the areas of E. 89th Street and E. 55th Street. Positive impact through improved access, mobility, and multi-modal connections.

4.3.7 Provision of Public Services

The proposed project would not negatively affect the public service provided by the Cleveland Clinic or other medical facilities that exist within the project study area. In fact, the increased connectivity provided by the proposed Opportunity Corridor project could make it easier for those within and beyond the study area to access medical services.

The project will not result in any permanent impacts to schools. In fact, the multi-modal elements of the proposed urban boulevard could provide safer and more efficient access to schools both within and adjacent to the study area.

The proposed project would also improve access and connectivity for emergency responders. The proposed project would close Quincy Avenue between E. 105th Street and Woodhill Road; however, access for emergency response providers would be provided via a driveway connection. Emergency response times may temporarily increase during construction of the project due to increased congestion resulting from construction activities, potential access restrictions in construction zones, lane closures, and detours. These effects, if any, would be temporary and would cease upon completion of construction. The proposed project would not displace any public facilities or permanently disrupt any public services located in the study area.

Conclusion: Positive impact due to better local access and connectivity for emergency responders and improved multi-modal access to schools.

4.3.8 Safety

The proposed project will be designed according to the current federal, state, county, and city design standards. It will also result in upgrades in terms of lane width, roadway geometrics, and pavement condition for several of the intersecting side streets. In addition, the proposed project will also improve levels of service at existing congested intersections such as the I-490/E. 55th Street intersection. As a result, the project is anticipated to improve safety for vehicular traffic.

By constructing a separate multi-use path and appropriate pedestrian and bicycle crossings within the proposed transportation right-of-way, the proposed project would have a positive effect on bicycle and pedestrian safety within the study area.

In addition, the demolition of abandoned structures, which residents have noted as high-crime locations, could improve safety within the project area. Safety could also be enhanced through traffic- and pedestrian-generated human presence.

Conclusion: Positive impact due to improved vehicular, multi-modal, and personal safety.

4.4 MEASURES TO AVOID, MINIMIZE AND MITIGATE EFFECTS

Several avoidance and minimization measures have been incorporated into the design of the proposed project. These measures include the following:

- Use of retaining walls to limit right-of-way acquisition and displacements;
- Alignment shifts to avoid and minimize negative effects to existing residences, as well as existing and planned expansions of existing businesses; and
- Engineering design refinements to avoid impacts to community resources such as the Kenneth Johnson Recreational Center, churches and historic properties.

Additionally, due to the use of a CSS design process, extensive coordination was conducted with project stakeholders, including the neighborhood residents, local business owners, and the general public. The feedback received through this process led to several changes to reduce impacts, improve the look of the roadway and best meet the community's priorities and needs. For example, the path of the roadway was shifted in several places between East 55th Street and Quincy Avenue to minimize the number of homes and businesses affected by the project. These changes minimized impacts in the St. Hyacinth area, as well as the planned expansion of two major employers (Orlando Baking Company and Miceli's Dairy Products). In some areas, such as the St. Hyacinth neighborhood, retaining walls were added to minimize impacts to homes and businesses.

The design was also updated to avoid negatively impacting community resources such as the Kenneth Johnson Recreational Center, churches and historic properties. For instance, the current design includes narrower lane widths on East 105th Street north of Park Lane, which is where the project reconnects to the existing streets. In this area, the lanes would be narrower than Cuyahoga County design standards to match the existing lane widths. This eliminated impacts to city-owned Wade Park and minimized impacts to the Wade Park Historic District. Another design change included keeping Quincy Avenue between East 105th Street and Woodhill Road open for emergency vehicles, bicycles, and pedestrians. This change was made at the request of the City of Cleveland and was designed to minimize impacts related to closing Quincy Avenue.

Due to the use of a CSS design process, extensive coordination was conducted with project stakeholders, including neighborhood residents, local business owners, and the general public. For example, the proposed project includes construction of a quadrant roadway immediately east of East 55th Street. As part of the alternatives analysis process, the quadrant roadway was evaluated against several other intersection/interchange design options, including a traditional at-grade intersection and partial interchange configurations. These intersection/interchange treatments varied greatly in terms of potential impacts, benefits, and cost. During coordination with the project stakeholders, it was

discovered that—despite its higher number of residential displacements—the local community preferred the quadrant roadway intersection design. Therefore, this design option was added to the project's design based on the community's desire to keep full access to and from E 55th Street. It will also help make accessing the East 55th Street transit station easier and safer for pedestrians.

Through the iterative CSS design process, several design features were added to the project to minimize negative impacts, as well as to improve its functionality and appearance. These elements include multi-modal facilities such as a sidewalk and a multi-use path; mast arm traffic signal supports; combined street and pedestrian lighting; grass tree lawns (parkways); street trees; roadway median with stormwater treatment measures; retaining walls and bridge abutments with form-liner surfaces and colored surface sealer; and designated locations for streetscape amenities such as benches, trash receptacles, and bike racks.

Based on the effect assessment, the greatest potential for negative effects of the proposed project is the displacement of existing homes and businesses. Relocations will be conducted in accordance with the provisions of the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (Uniform Act). Although all federal-aid transportation projects are required to follow its provisions, the Uniform Act was passed by Congress to provide uniform and equitable treatment for persons whose property is acquired for public use. In describing one of the fundamental objectives of the Uniform Act, the legislative history makes it clear that a displaced homeowner should not be left worse off economically than he or she was before displacement and should be able to relocate to a comparable dwelling that is decent, safe, and sanitary. Relocation Assistance Program (RAP) surveys conducted during preliminary design concluded that suitable land and buildings exist within the immediate surrounding areas (i.e., within a five mile radius of the project) to accommodate relocations, if so desired by the affected owner.

The Project Team will continue to work through final design to identify and evaluate measures to avoid and minimize any potentially negative effects of the proposed project.

The following summarizes the specific mitigation measures to be implemented as part of the proposed project:

- ODOT will commit to building two pedestrian/bike bridges: one at E. 55th Street, near the western terminus of the project, and another bridge in the mid-section of the project at E. 89th Street. By maintaining or enhancing pedestrian/bike connectivity and access to public transportation and community facilities such as the E. 55th rapid transit station and the Kenneth L. Johnson (Woodland) Recreation Center, the bridges will mitigate the anticipated increases in pedestrian and bicycle travel times resulting from the construction of the boulevard. The bridge at E. 55th Street will also provide an opportunity for bicycles and pedestrians to safely cross the new boulevard without concern for conflicts with vehicular traffic. At these locations, ODOT will also install security features such as video monitoring and blue box emergency phone systems to contact the police in the event of an emergency. These features are intended to work within the City's existing infrastructure and emergency response system to enhance safety in the area of the project. Specific locations of the security features will be determined in coordination with

the City during final design. The estimated cost of each bridge is expected to be about $1,500,000.

- The project would bisect some existing blocks, which could isolate some remaining residents. To mitigate potential negative impacts, ODOT will commit to a voluntary residential relocation program to allow residents not directly impacted by the project but located in isolated pockets adjacent to the project to be eligible for relocation assistance. Under this program, residents choosing to relocate would apply for relocation benefits. The voluntary program, which would be conducted in accordance with the provisions of the Uniform Act, would evaluate applications based on criteria such as proximity to the project, isolation from other residential populations or key goods and services, and proximity to non-compatible land uses. ODOT proposes to commit up to $1,000,000 toward the cost of the program.
- The Kenneth L. Johnson (Woodland) Recreational Center is an important community resource to area residents. ODOT will commit to providing a financial contribution to the next phase of planned expansion of the facility. ODOT expects the financial aid to be approximately $500,000.
- As part of the relocation process, ODOT will work to provide comparable replacement housing options in terms of transit access, if they exist on the open market. Additionally, to mitigate the potential negative effects to community cohesion resulting from residential displacements, ODOT will make all reasonable efforts to relocate affected residential land-owners within the same neighborhood, if the residents so desire.
- The noise analysis determined that noise walls were the only option to mitigate the traffic noise impacts resulting from the proposed project. As shown below in **Table 7,** noise walls were recommended in three areas.

Table 7 Possible Noise Wall Locations and Sizes

Location	Approximate Length (feet)	Height Range (feet)
South side of boulevard between 71st St. and 75th St.	610	11-14
North side of boulevard between GCRTA Blue/Green Line and 75th St.	540	13
North side of boulevard between Evart Ave. and Buckeye Rd.	500	13

In accordance with ODOT's policy, ODOT will gather input from residents and property owners who would be affected by the noise walls. ODOT will decide whether to build the noise walls based on the desires of the affected people. If noise walls are desired, the people who are affected would help decide how the walls would look on their side of the wall. This public involvement effort and the final decision about whether to build the noise walls would not be made until the project is in its final design stage.

Beyond the specific mitigation commitments outlined above, ODOT intends to present following additional mitigation measures and community enhancements to the public as part of the Draft EIS and

public hearing in an effort to seek input as to whether these measures should be implemented as part of the proposed project:

- Job Training Assistance – ODOT could provide a financial contribution towards existing job training programs for work in conjunction with local labor unions to promote work force development in the construction industry and potential construction work on highway projects.
- Noise Barrier Enhancements – ODOT could provide enhanced noise barriers at warranted locations. The enhanced design could include using transparent materials to increase visibility, as well as other alternative materials to improve the visual appearance of the barriers.
- Urban Agriculture Preserve – ODOT could provide financial aid to assist in the planning and development of sites previously identified to part of the Urban Agricultural Innovation Zone, which is located in the Kinsman neighborhood. Specifically, financial aid could be directed toward completion of soil sampling at these sites. This work could be accomplished as part the on-going project development and Phase II Environmental Site Assessment studies.
- St. Hyacinth Neighborhood Entrance – The construction of the project will require the closure of Francis Avenue at E. 55 Street. Francis Avenue currently serves as the primary entrance to and travel route through the St. Hyacinth neighborhood. Once Francis Avenue is closed, Maurice and Bellford Avenues (which are located to the south) will serve as the neighborhood entrances. To mitigate the potential negative effects, ODOT could construct enhancements along Maurice and Bellford avenues. These measures could include items such as street trees, sidewalk repair and/or pavement surface course repair within the existing right of way.
- ODOT could consider increasing the Disadvantaged Business Enterprise (DBE) construction goal to 15-percent in an effort to facilitate DBE participation in the construction contract(s).
- Enhanced Bus Shelters – ODOT could participate in the construction of enhanced bus shelters in areas where the existing bus lines intersect the new alignment sections of the project. This could include Kinsman Road, E. 79th, Buckeye Road, Quincy Avenue and Cedar Avenue. If implemented, the enhanced bus shelters would make it more convenient for residents to easily access existing transit services.

5.0 CONCLUSION

The characteristics of the project study area are such that any projects—including the proposed Opportunity Corridor project—would have an impact on low-income and minority populations. Due to the area's socioeconomic characteristics, a feasible alternative which addresses the identified transportation needs and avoid impacts to low-income and minority populations does not exist. During the project development process, a number of factors were considered and, to the extent practicable, impacts to residences, businesses, and community facilities were avoided and/or minimized. Despite these efforts, unavoidable impacts would still occur as a result of the proposed project. These impacts would be predominantly borne by low-income and minority populations; therefore, the Opportunity Corridor project would result in disproportionately negative effects to low-income and minority populations.

Based on this determination, several mitigation measures and community enhancements will be implemented as part of the proposed project. These measures, which are discussed in **Section 4.4**, will mitigate the negative impacts of the proposed project, as well as provide additional benefits to the local community beyond the proposed transportation improvements.

There are also a number of positive impacts anticipated to result from the implementation of the proposed project, including the following:

- Improved access to the Interstate system and a major employment center (University Circle);
- Increased mobility and local access for all transportation system users;
- Increased pedestrian and bicycle access, connectivity, and safety;
- Potential for increased local employment opportunities resulting from planned complementary development as part of the City of Cleveland's revitalization strategy;
- Potential for enhanced community cohesion through complementary infill development and redevelopment;
- Improved visual environment through incorporation of visual design elements such as mast arm traffic signal supports; combined street and pedestrian lighting; grass tree lawns (parkways); street trees; landscaped roadway median with stormwater treatment measures; retaining walls and bridge abutments with form-liner surfaces and colored surface sealer; and design locations for streetscape amenities such as benches, trash receptacles, and bike racks;
- Improved safety through the construction of upgrades to the existing local streets at proposed intersections, construction of dedicated bicycle and pedestrian facilities, improved levels of service at congested intersections, as well as an increased traffic- and pedestrian-generated human presence.

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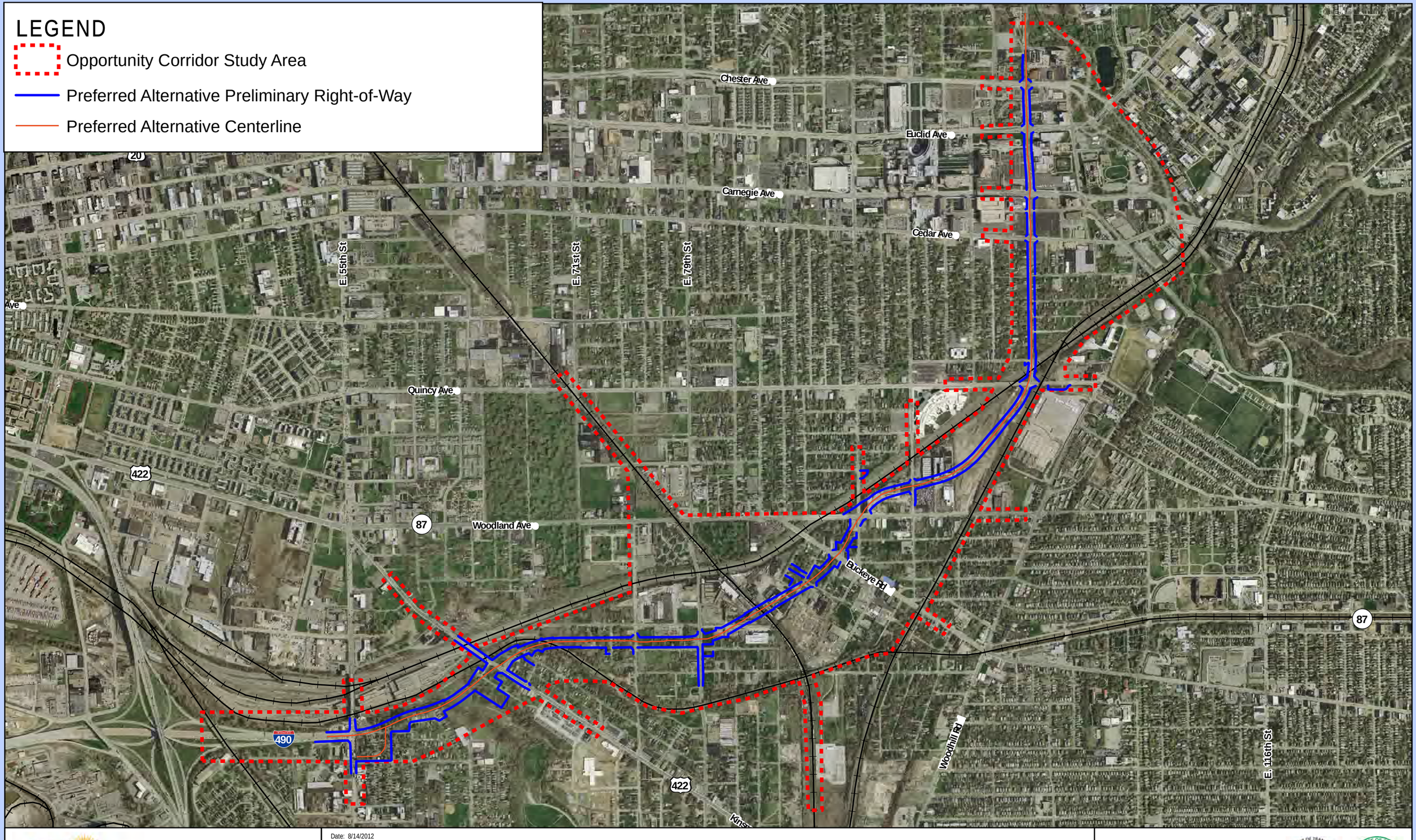
APPENDIX A: EXHIBITS AND FIGURES

LEGEND

- Opportunity Corridor Study Area
- Preferred Alternative Preliminary Right-of-Way
- Preferred Alternative Centerline



CUY - Opportunity Corridor
(PID 77333)
Cleveland, OH

Date: 8/14/2012

Prepared by: TVF

Note:
GIS data used to create this map are from the best sources available. Use of this map should be used only for planning purposes.
Aerial image is dated (circa 2011) and is shown only for illustrative purposes.

0 0.125 0.25 0.5 Miles

NORTH

Figure 1:
Project Study Area

St. Clair-Superior
Glenville
Goodrich-Kirtland Park
Hough
University Circle
URBAN
Downtown
Chester Ave
Euclid Ave
Superior Ave
Carnegie Ave
Cedar Ave
Orange Ave
Fairfax
E. 105th/Quincy Station
E. 105th St
University
Quincy Ave
Central
Industrial Valley
Broadway Ave
GCRTA Red Line
Woodland Ave
E. 79th St Station
Buckeye Rd
The Forgotten Triangle
Shaker Blvd
GCRTA Red, Blue, and Green Lines
GCRTA Blue and Green Lines
E. 55th St Station
E. 79th St Station
Buckeye-Shaker
Kinsman Rd
Woodhill Rd
Tremont
Kinsman
Woodland Hills
INDEPENDENCE
E. 55th St
North Broadway
E. 93rd St
Union-Miles Park
Union Ave
Mt. Pleasant
South Broadway

Cuyahoga County
State of Ohio
City of Cleveland
Cuyahoga County
Area of Detail
City of Cleveland

Legend
- Opportunity Corridor Study Area
- Interstate
- State Route
- US Route
- Local Street
- GCRTA Rail Line
- Active Freight Rail Line
- Statistical Planning Area
- GCRTA Station

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0 0.25 0.5 1 Miles

NORTH

Figure 2:
Project Location and Study Area

Legend

- Residential
- Institutional
- Manufacturing
- Recreation
- Retail
- Service-Office
- Transportation
- Vacant
- Preferred Alternative
- Final Indirect and Cumulative Effects Study Area

Carnegie Ave
Cedar Ave
E. 55th St
E. 71st St
E. 79th St
Quincy Ave
Broadway Ave
87
Woodland Ave
Buckeye Rd
GCRTA Red Line
GCRTA Blue and Green Line
NS Nickelplate Line
490
422
Kinsman Rd
CSX Mainline
Woodhill Rd
E. 116th St
77
NS Cleveland Mainline

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(PID 77333)
Cleveland, OH

Date: 8/14/2012

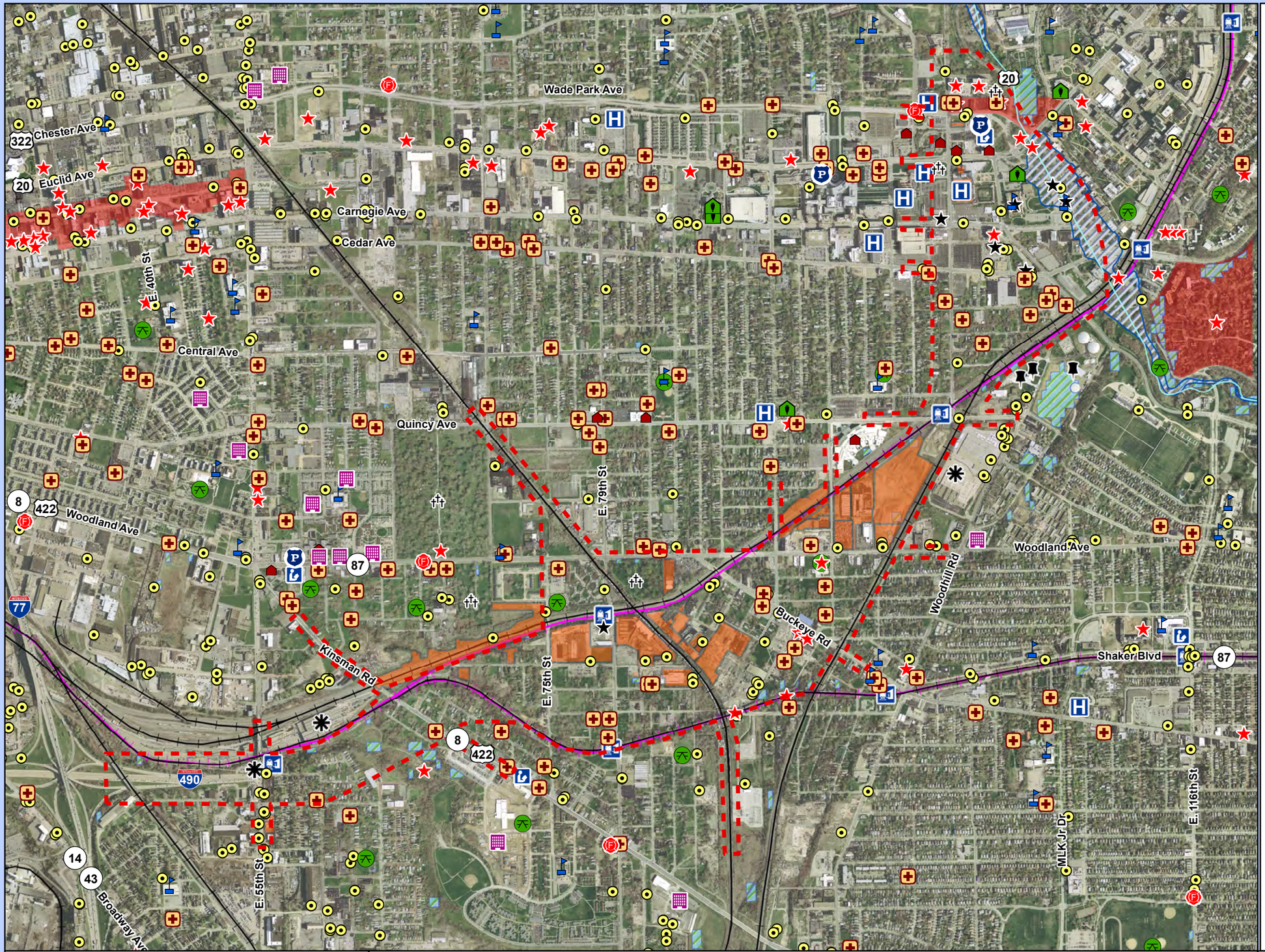
Prepared by: TVF

Note:
The information for this figure was generated using City of Cleveland 2005 Land Use GIS data. The data for parcels within the boundaries of the final ICE study area were updated based on 2011 aerial photography.

0 0.125 0.25 0.5 Miles

NORTH

Figure 3:
Existing Land Use and Vacant Parcels



Legend

- Opportunity Corridor Study Area
- Cemetery
- Cuyahoga Metropolitan Housing Authority (CMHA)
- Community Services
- Cultural Facilities
- Faith Based Organizations
- Educational Facilities
- Police Stations
- Fire Stations
- Health Facilities
- Libraries
- NRHP Listed/Eligible Resources
- Potentially Historic Resources
- Parks/Playgrounds/Recreation Centers
- Potential Hazardous Materials Sites (from secondary sources)
- Phase I ESA Sites (from project studies)
- Doan Brook
- Utilities
- Potential Wetlands
- 100-Year Floodplain
- NRHP Historic District
- RTA Services and Facilities
- RTA Rail Stations
- Active Freight Rail
- RTA Rail

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(PID 77333)
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Aerial image is dated (circa 2011) and is shown only for illustrative purposes.

0 0.125 0.25 0.5 Miles

NORTH

Figure 4:
Community Resources

Legend

Opportunity Corridor Study Area

Study Area Parcels (08-2012)

Study Area Structures

Type

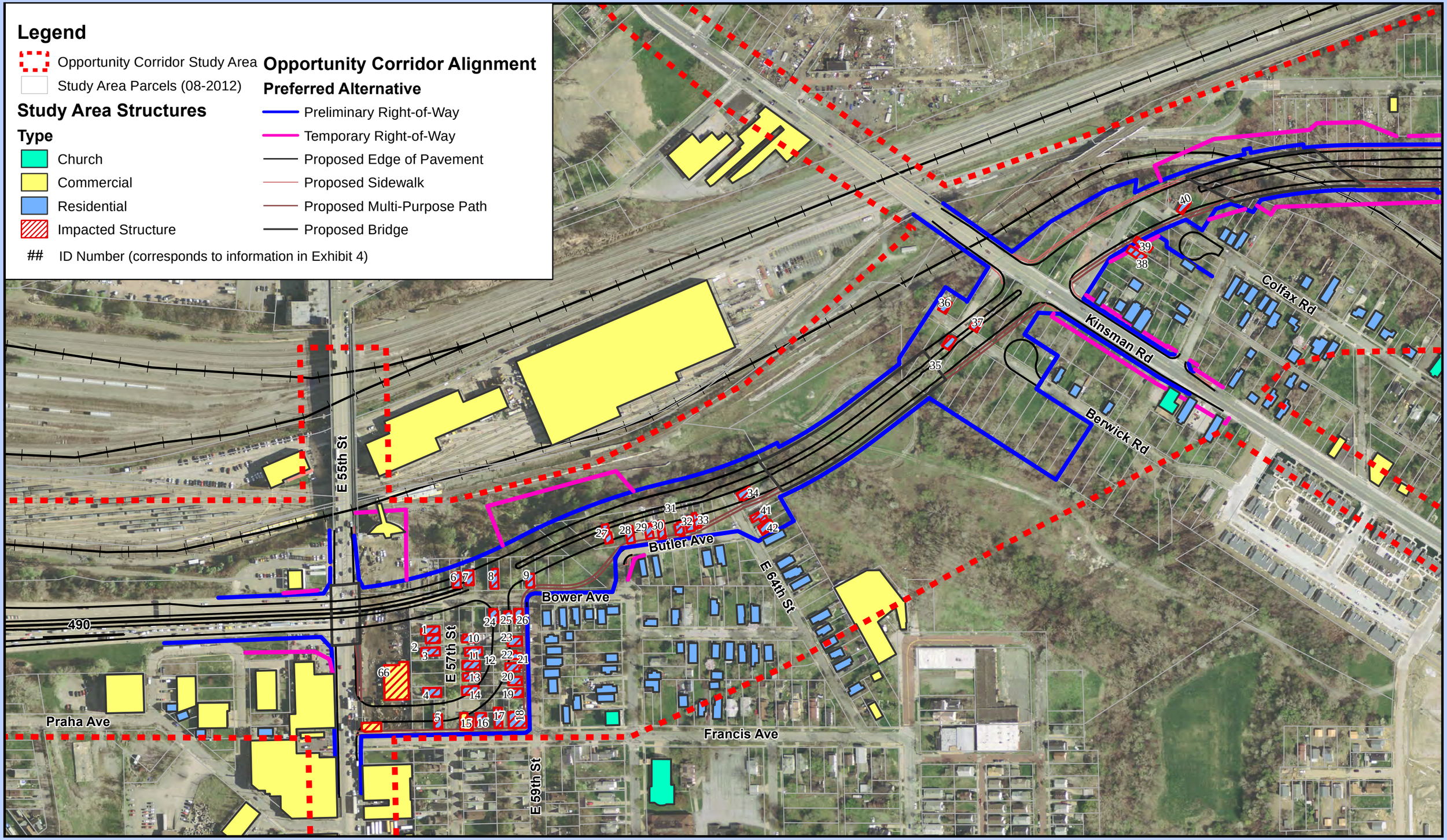
- Church
- Commercial
- Residential
- Impacted Structure

ID Number (corresponds to information in Exhibit 4)

Opportunity Corridor Alignment

Preferred Alternative

- Preliminary Right-of-Way
- Temporary Right-of-Way
- Proposed Edge of Pavement
- Proposed Sidewalk
- Proposed Multi-Purpose Path
- Proposed Bridge



CUY - Opportunity Corridor
(PID 77333)
Cleveland, OH

Date: 08/3/2012

Prepared by: TVF

Note:
GIS data used to create this map are from the best sources available. Use of this map should be used only for planning purposes.
Aerial image is dated (circa 2011) and is shown only for illustrative purposes.
Existing structures were confirmed through a field visit performed on 08/02/2012.

0 125 250 500 Feet

NORTH

Figure 5a:
Preferred Alternative
Structure Impacts

Legend

Opportunity Corridor Study Area

Study Area Parcels (08-2012)

Study Area Structures

Type

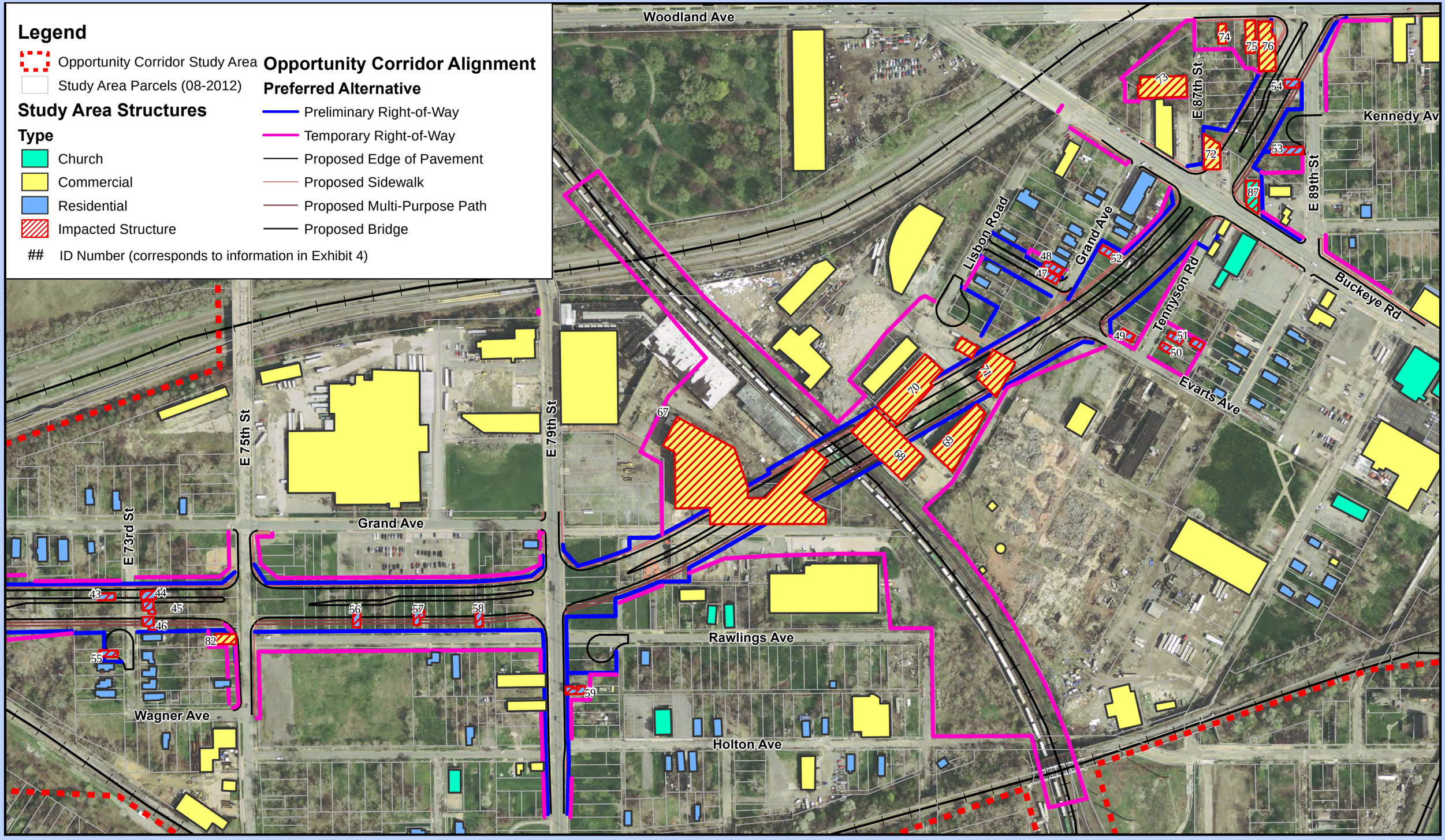
- Church
- Commercial
- Residential
- Impacted Structure

ID Number (corresponds to information in Exhibit 4)

Opportunity Corridor Alignment

Preferred Alternative

- Preliminary Right-of-Way
- Temporary Right-of-Way
- Proposed Edge of Pavement
- Proposed Sidewalk
- Proposed Multi-Purpose Path
- Proposed Bridge



CUY - Opportunity Corridor
(PID 77333)
Cleveland, OH

Date: 08/3/2012

Prepared by: TVF

Note:
GIS data used to create this map are from the best sources available. Use of this map should be used only for planning purposes.
Aerial image is dated (circa 2011) and is shown only for illustrative purposes.
Existing structures were confirmed through a field visit performed on 08/02/2012.

0 125 250 500 Feet

NORTH

Figure 5b:
Preferred Alternative
Structure Impacts

Legend

Opportunity Corridor Study Area

Study Area Parcels (08-2012)

Study Area Structures

Type

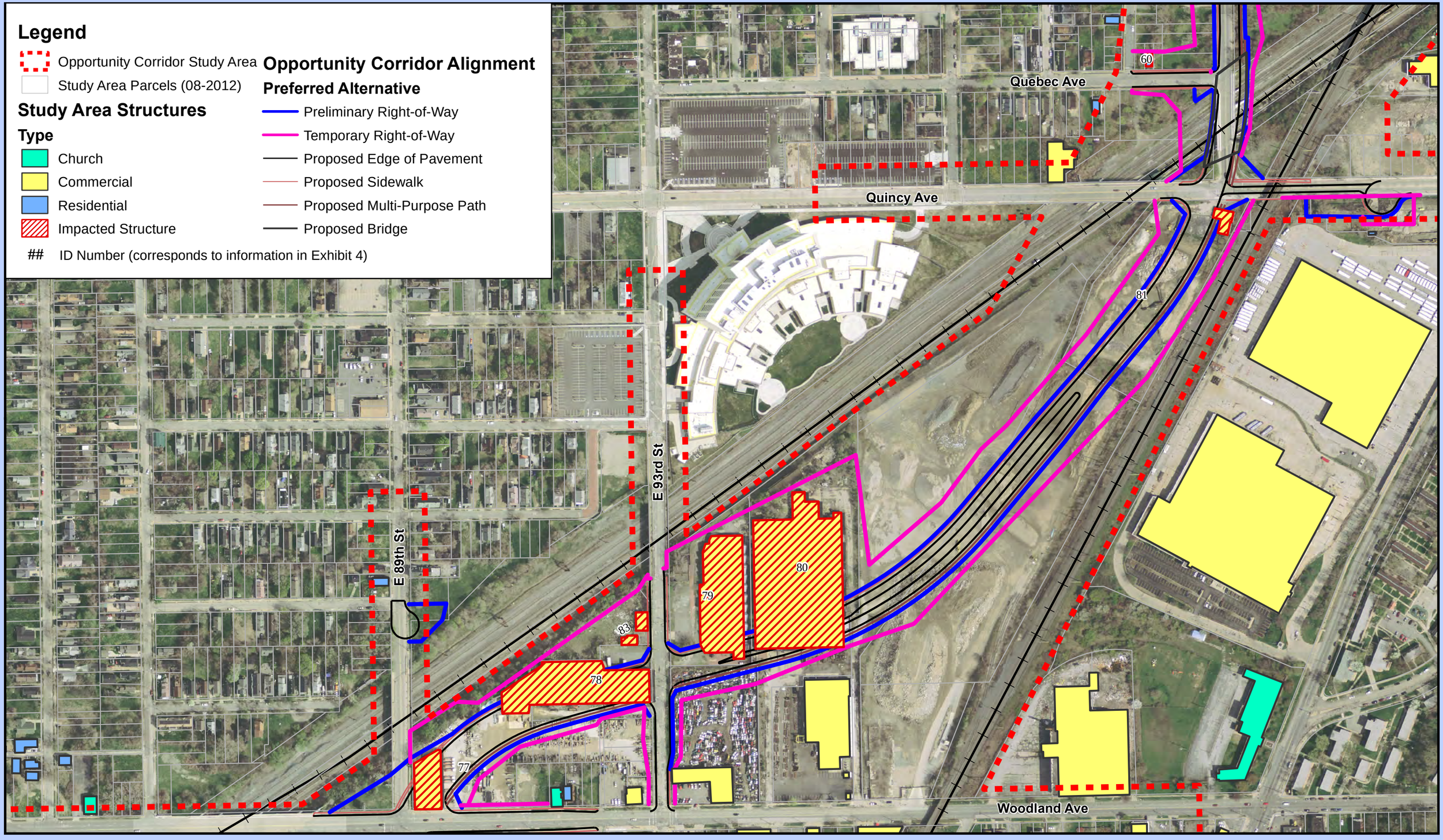
- Church
- Commercial
- Residential
- Impacted Structure

ID Number (corresponds to information in Exhibit 4)

Opportunity Corridor Alignment

Preferred Alternative

- Preliminary Right-of-Way
- Temporary Right-of-Way
- Proposed Edge of Pavement
- Proposed Sidewalk
- Proposed Multi-Purpose Path
- Proposed Bridge



CUY - Opportunity Corridor
(PID 77333)
Cleveland, OH

Date: 08/3/2012

Prepared by: TVF

Note:
GIS data used to create this map are from the best sources available. Use of this map should be used only for planning purposes.
Aerial image is dated (circa 2011) and is shown only for illustrative purposes.
Existing structures were confirmed through a field visit performed on 08/02/2012.

0 125 250 500 Feet

NORTH

Figure 5c:
Preferred Alternative
Structure Impacts

Legend

Opportunity Corridor Study Area

Study Area Parcels (08-2012)

Study Area Structures

Type

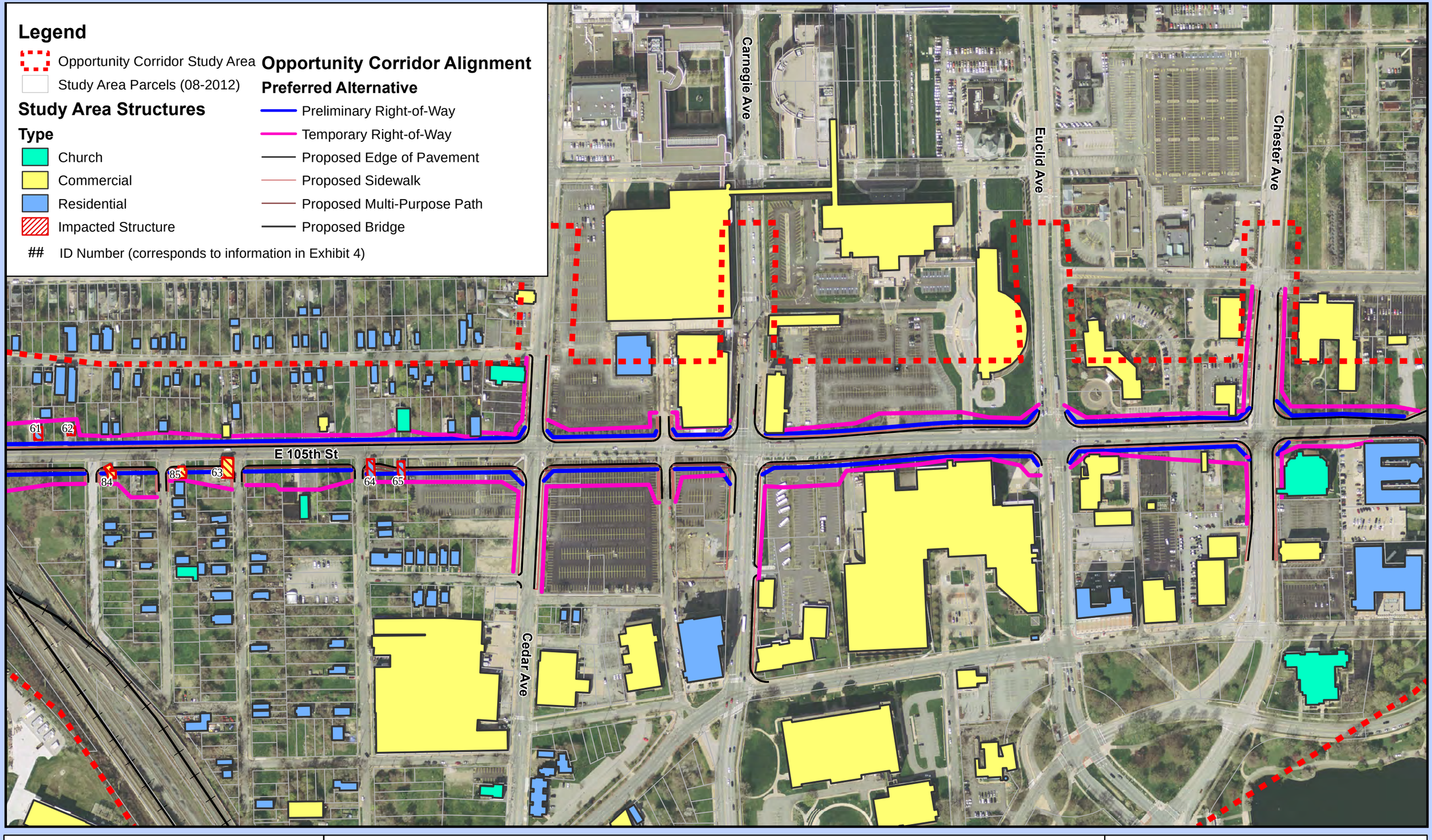
- Church
- Commercial
- Residential
- Impacted Structure

ID Number (corresponds to information in Exhibit 4)

Opportunity Corridor Alignment

Preferred Alternative

- Preliminary Right-of-Way
- Temporary Right-of-Way
- Proposed Edge of Pavement
- Proposed Sidewalk
- Proposed Multi-Purpose Path
- Proposed Bridge



CUY - Opportunity Corridor
(PID 77333)
Cleveland, OH

Date: 08/3/2012

Prepared by: TVF

Note:
GIS data used to create this map are from the best sources available. Use of this map should be used only for planning purposes.
Aerial image is dated (circa 2011) and is shown only for illustrative purposes.
Existing structures were confirmed through a field visit performed on 08/02/2012.

0 125 250 500 Feet

NORTH

Figure 5d:
Preferred Alternative
Structure Impacts

Exhibit 4: Preferred Alternative Structure Impacts

Residential Impacts

Map ID	Land Owner	Building Type	Neighborhood	Street Number	Street name	Street Suffix	Parcel No.	# Structures	No. of Residential Displacements/Units
1	Jennifer E. Reid	Residential	Slavic Village	2904	E 57	St	12502141	1	2
2	Javier and Julissa Gonzalez	Residential	Slavic Village	2908	E 57	St	12502140	1	2
3	Markita Gardner	Residential	Slavic Village	2912	E 57	St	12502139	1	2
4	Donny R. Neace	Residential	Slavic Village	2924	E 57	St	12502136	1	0
5	Kenneth G. Biennas	Residential	Slavic Village	5609	Francis	Ave	12502145	1	1
6	Lita Brzoska	Residential	Slavic Village	5615	Bower	Ave	12502051	1	2
7	Antonette M. Bina	Residential	Slavic Village	5703	Bower	Ave	12502052	1	2
8	Homeventures, Inc.	Residential	Slavic Village	5711	Bower	Ave	12502054	1	0
9	Kim Green	Residential	Slavic Village	5809	Bower	Ave	12502057	1	1
10	Beatris Gonzalez	Residential	Slavic Village	2909	E 57	St	12502098	1	2
11	Marlene Chimileski	Residential	Slavic Village	2913	E 57	St	12502099	1	1
12	Kenneth J. and Deborah A. Kotmel	Residential	Slavic Village	2915	E 57	St	12502100	1	1
13	Norbert J. and Mary A. Kelsey	Residential	Slavic Village	2919	E 57	St	12502101	1	2
14	Chester A. Telesz	Residential	Slavic Village	2925	E 57	St	12502102	1	1
15	Marianne G. James	Residential/Commercial	Slavic Village	5705	Francis	Ave	12502104	0	1
16	Marvienne S. Talley	Residential	Slavic Village	5707	Francis	Ave	12502156	1	0
17	Reverend Leo Telesz	Residential	Slavic Village	5713	Francis	Ave	12502146	1	2
18	Timothy Majkrzak	Residential	Slavic Village	5805	Francis	Ave	12502147	1	1
19	Cleveland Housing Network	Residential	Slavic Village	2930	E 59	St	12502093	1	0
20	Wevette D. Walton	Residential	Slavic Village	2922	E 59	St	12502094	1	1
21	Natalie Woodard	Residential	Slavic Village	2918	E 59	St	12502095	1	0
22	Edmond Davis Jr.	Residential	Slavic Village	2912	E 59	St	12502096	1	1
23	Susan M. Arceneaux	Residential	Slavic Village	2908	E 59	St	12502097	1	2
24	Ronald Taupieka	Residential	Slavic Village	5710	Bower	Ave	12502044	1	2
25	Ronnie Miller	Residential	Slavic Village	5802	Bower	Ave	12502043	1	1
26	Andre B. Chapman	Residential	Slavic Village	5806	Bower	Ave	12502042	1	2
27	Carl Wallace Jr.	Residential	Slavic Village	6011	Butler	Ave	12501001	1	1
28	Jackie L. Simmons	Residential	Slavic Village	6103	Butler	Ave	12501053	1	1
29	Kerper Home Heating	Residential	Slavic Village	6109	Butler	Ave	12501051	1	2
30	Joyce M. Hairston	Residential	Slavic Village	6111	Butler	Ave	12501050	1	1
31	James E. Dotson	Residential	Slavic Village	6119	Butler	Ave	12501048	1	1
32	Rodney and Vivian Reynolds	Residential	Slavic Village	6121	Butler	Ave	12501047	1	1
33	Queenie Pollard	Residential	Slavic Village	6201	Butler	Ave	12501046	1	0
34	Cleveland Housing Network	Residential	Slavic Village	2863	E 64	St	12501041	1	1
35	William Potts	Residential	Kinsman	6620	Berwick	Rd	12517003	1	2
36	Bessie Harris	Residential	Kinsman	6611	Berwick	Rd	12517040	1	1
37	Phillip Leonard and Love Jones	Residential	Kinsman	6623	Berwick	Rd	12517038	1	1
38	Vanessa and Willie Wibush Sr.	Residential	Kinsman	2799	E 68	St	12425024	1	1
39	Ivory Jackson	Residential	Kinsman	2795	E 68	St	12425023	1	2
40	Crowell Rozell	Residential	Kinsman	6815	Colfax	Rd	12425003	1	2
41	Duane Donovan and Joy Mechlin	Residential	Slavic Village	2871	E 64	St	12501039	1	1
42	Irene Bruckner	Residential	Slavic Village	2875	E 64	St	12501038	1	2
43	Cleveland Housing Network	Residential	Kinsman	2772	E 73	St	12424018	1	1
44	Mid-Ohio Securities	Residential	Kinsman	2773	E 73	St	12424021	1	1
45	Pleasant Properties, LP	Residential	Kinsman	2777	E 73	St	12424022	1	0
46	Pleasant Properties, LP	Residential	Kinsman	2783	E 73	St	12424023	1	1
47	Joseph Lonardo	Residential	Kinsman	2684	Grand	Ave	12620014	1	0
48	Twilla Hughley	Residential	Kinsman	2680	Grand	Ave	12620013	1	2
49	Estate of James Rose	Residential	Kinsman	2706	Tennyson	Rd	12622070	1	0
50	Robert Townsend	Residential	Kinsman	2701	Tennyson	Rd	12622053	1	1
51	John Gianguzzo	Residential	Kinsman	2697	Tennyson	Rd	12622054	2	3
52	Joyce Butler	Residential	Kinsman	2669	Grand	Ave	12622006	1	1
53	City of Cleveland Land Reutilization Program	Residential	Kinsman	2638	E 89	St	12613016	1	0
54	AEON Financial LLC	Residential	Kinsman	2620	E 89	St	12613012	1	0
55	City of Cleveland Land Reutilization Program	Residential	Kinsman	2792	E 73	St	12424013	1	1
56	Cora Thompson	Residential	Kinsman	7521	Rawlings	Ave	12428055	1	1
57	Pleasant Properties, LP	Residential	Kinsman	7617	Rawlings	Ave	12428061	1	0
58	Emma Barnes	Residential	Kinsman	7715	Rawlings	Ave	12428066	1	2
59	Rodney Carter	Residential	Kinsman	2801	E 79	St	12627010	1	1
60	B S Thomas and B S Thomas Jr.	Residential	Fairfax	10303	Quebec	Ave	12119054	1	1
61	Minnie Lee Kirkman	Residential	Fairfax	2308	E 105	St	12119060	1	1
62	Lillian Oliver	Residential	Fairfax	2298	E 105	St	12119063	1	1
63	Jerry Saa (PNG Supermarket)	Residential/Commercial	University Circle	2249	E 105	St	12120047	0	2
64	Kimberly Tolliver	Residential	University Circle	2207	E 105	St	12120056	1	2
65	Rosie Wright	Residential	University Circle	2199	E 105	St	12120059	1	2
82	Tuzzan Ltd (Upstairs apartments boarded up)	Residential/Commercial	Kinsman	2784	E 75	St	12424045	0	0
							Residential Impacts Grand Total	**64**	**76**

Commercial Impacts

Map ID	Owner (Organization)	Building Type	Neighborhood	Street Number	Street name	Street Suffix	Parcel No.	# Structures	No. of Business Displacements/ Active Business
66	Immo Realty LLC (listed with p/n 12502002)(JBI Scrap Processors)	Commercial	Slavic Village	2925 -2937	E 55	St	12502002	2	1
15	Marianne G. James (Northeast Video)	Residential/Commercial	Slavic Village	5705	Francis	Ave	12502104	1	1
67	POISE Entertainment Education	Commercial	Kinsman	8107 / 2685	Grand/E 79	Ave/St	12626015	1	0
67	POISE Entertainment Education	Commercial	Kinsman	8107 / 2685	Grand/E 79	Ave/St	12626001		
68	RGA Construction Company LLC (Paris Foods)	Commercial	Kinsman	2742	Grand	Ave	12620022	1	1
69	City of Cleveland (Amclo Inc.)	Commercial	Kinsman	2770	Grand	Ave	12620042	1	1
70	Brandon Hironen	Commercial	Kinsman	2742	Grand	Ave	12620024	1	1
71	F&P Produce (Final Cut)	Commercial	Kinsman	2742	Grand	Ave	12620021	2	
72	Jerry Roman (Super Service/Peacock Autobody)	Commercial	Kinsman	2639	E 87	St	12613026	1	2
73	Frank F.J. & Gladys Stefanek (Former John's Lumber Company - vacant)	Commercial	Kinsman	2622	Woodland	Ave	12613035	1	0
74	Frank F.J. & Gladys Stefanek (Former John's Lumber Company - vacant)	Commercial	Kinsman	8706	Woodland	Ave	12613005	1	0
75	Anthony Fisher (Cleveland City Club Center)	Commercial	Kinsman	8716	Woodland	Rd	12613007	1	1
76	Anthony Fisher (Cleveland City Club Center)	Commercial	Kinsman	8800	Woodland	Rd	12613008	1	
77	Edw & Lois Bruder (Bruder Inc)	Commercial	Fairfax	9005	Woodland	Ave	12608014	1	1
78	Grekopfixbun LLC (CBF Industries)	Commercial	Fairfax	2538	E 93rd	St	12608031	1	1
78	Edwawrd & Lois Bruder (CBF Industries)	Commercial	Fairfax		Nevada	Ave	12608071		
79	Jondavid Balunek (Former Peerless Auto Industrial Building-vacant)	Commercial	Fairfax	2525	E 93	St	12610002	1	0
80	CET Properties LLC (Former Model Box Company-vacant)	Commercial	Fairfax	9503	Woodland	Ave	12610004	1	0
81	JCC Miles Inc. (Car Wash)	Commercial	Fairfax	10500	Quincy	Ave	12611006	1	1
82	Tuzzan Ltd (Mattress Store)	Residential/Commercial	Kinsman	2784	E 75	St	12424045	1	1
83	Joseph L Grimes (Joe's Garage)	Commercial	Fairfax	2520	E 93	St	12608032	2	1
84	Anita M Lillard (Baby Boy Dogs)	Commercial	University Circle	2287	E 105	St	12120040	1	1
85	Gen'l Devel Ltd (Automotive Repair)	Commercial	University Circle	2265	E 105	St	12120180	1	1
63	Jerry Saa (PNG Supermarket)	Residential/Commercial	University Circle	2249	E 105	St	12120047	1	1
							Commercial Impacts Grand Total	**25**	**16**

Faith Based Impacts

Map ID	Organization	Building Type	Neighborhood	Street Number	Street Name	Street Suffix	Parcel No.	# Structures
87	Greater Roman Baptist Church	Faith Based Organization	Kinsman	8715	Buckeye	Rd	12613022	1
							Faith Based Impacts Grand Total	**1**

Notes:

List includes only parcels with impacted structures. Vacant parcels are not included in the impact summary

Structure for Residential ID No. 15 owned by Marianne G. James is listed in the commercial structure impact with residential relocations and business displacement

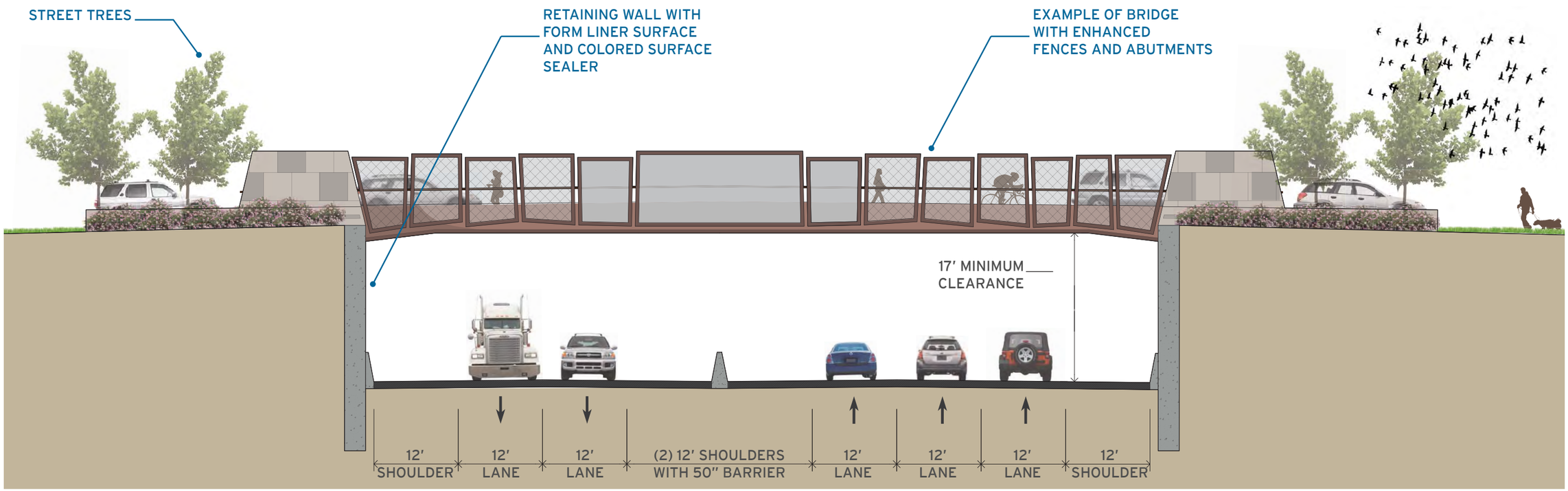
Structure for Residential ID No. 5 owned by Jerry Saa is listed in the commercial structure impact

Parcel No. for Residential ID No. 40 is listed as 12425003 in County Fiscal Officer's website indicates 2 unit (HNTB GIS indicate parcel no. is 12425002)

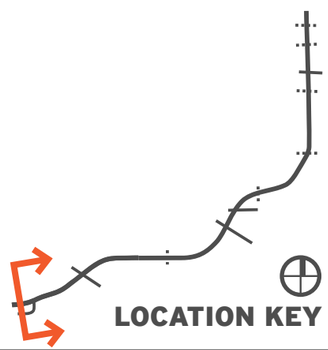
No. of units based on Cuyahoga County Fiscal Officer website research (08-3-2012) and field verification (8-3-2012)

FIGURE 6a – E. 55TH ST. BRIDGE (CROSS-SECTION)

LOOKING EAST



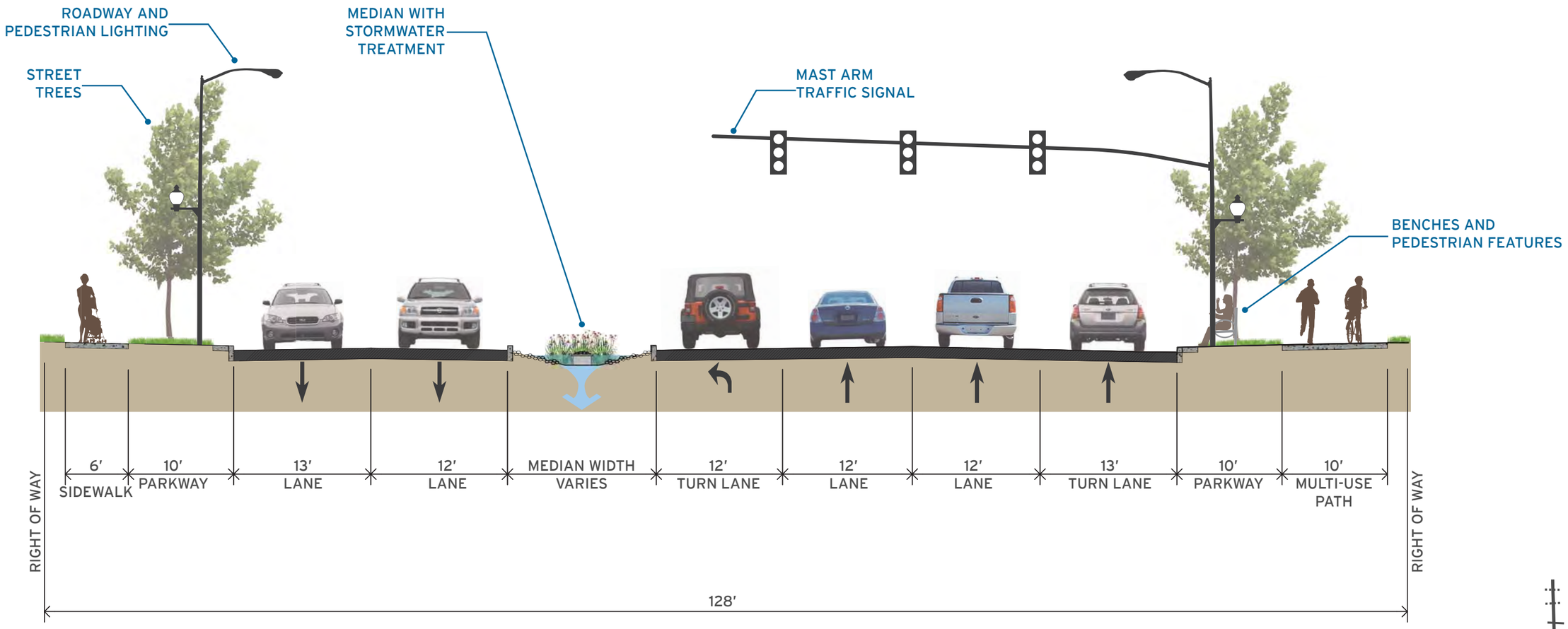
Note: The message and/or graphics illustrations to be used in this area are subject to additional design and aesthetic detail to be approved by ODOT and others, as appropriate



LOCATION KEY

FIGURE 6b – TYPICAL BOULEVARD SIGNALIZED INTERSECTION (CROSS-SECTION)

LOOKING EAST



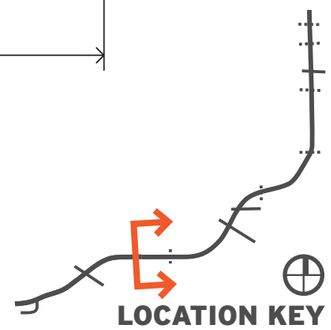
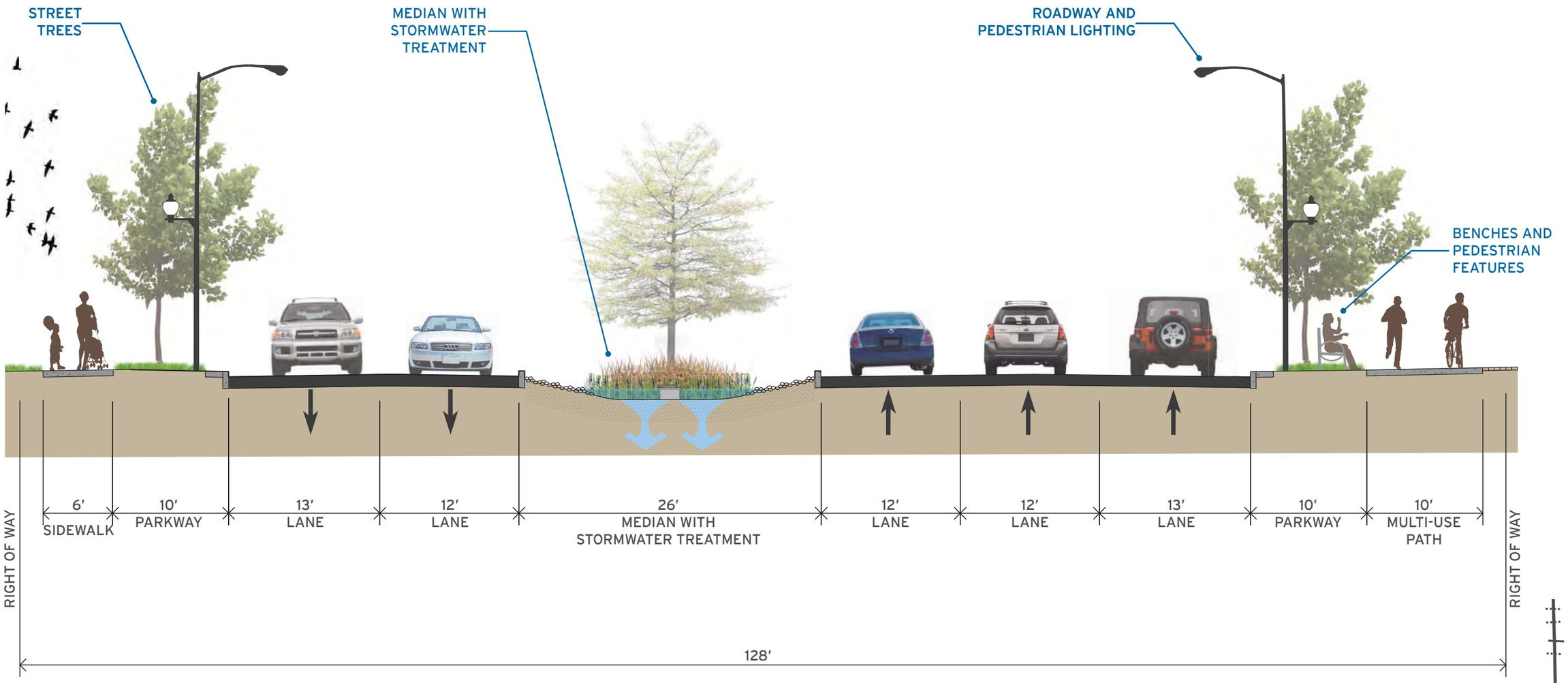
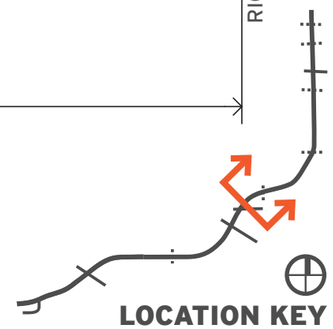


FIGURE 6c – TYPICAL BOULEVARD (CROSS-SECTION)

LOOKING EAST

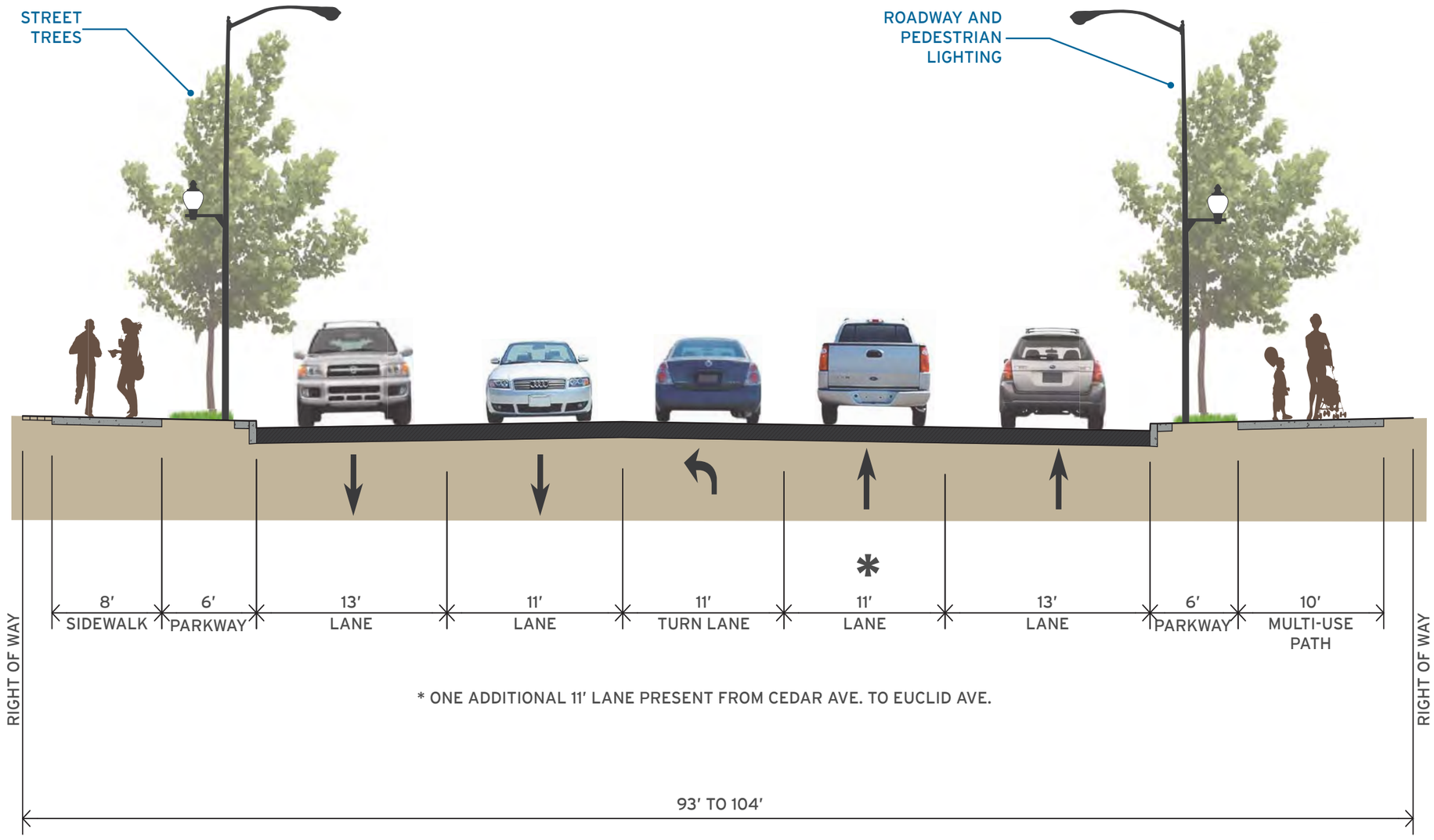




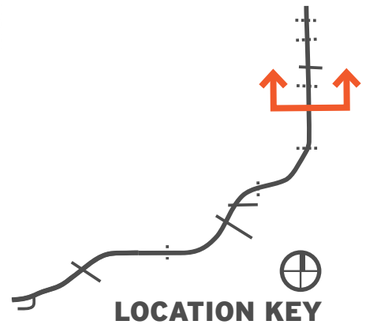
LOCATION KEY

Figure 6d - E. 105TH ST. (CROSS-SECTION)

LOOKING NORTH



* ONE ADDITIONAL 11′ LANE PRESENT FROM CEDAR AVE. TO EUCLID AVE.



LOCATION KEY